SYCH, V. YA.

PA 17/49T106

Jul 48

USSR/Metals
Steel, Alloys
Photoelectric Detectors

"Photoelectric Method for Determining Silicon, Phosphorus Manganese, Chromium and Nickel in Steel in One Cperation," V. F. Mal'tsev, V. Ya. Sych, Sci Res Pipe Inst, 4 pp

"Zavod Lab" Vol XIV, No 7- pp. 868-871

Describes method in detail. Saves both time and reagents and is very useful when investigating small quantities of metal.

17/49T106

[redacted].

S/0137/63/000/012/I096/I096

ACCESSION NR: AR4014157

SOURCE: RZh. Metallurgiya, Abs. 12I679

AUTHOR: Mal'tsev, V. F.; Sy*ch, V. Ya.

TITLE: Method of withdrawing samples for ultramicroquantitative analysis from structural components of metals

CITED SOURCE: Sb. Proiz-vo trub. M., Metallurgizdat, vy*p. 9, 1963, 132-135

TOPIC TAGS: Ultramicroquantitative steel analysis, steel sample drawing, steel microsection analysis, ultramicroquantitative metal analysis

TRANSLATION: A technique for withdrawing microsamples of the α phase from specimens of 1Kh18N9T steel is described. The microsection is coated with a film of transparent glyptal varnish and placed on the stage of the PMT-3 instrument, in which a drill with a diamond bit is mounted in place of the indenter. The varnish film is drilled over the selected grain of the α phase, a drop of electrolyte (20% solution of ammonium persulfate) is placed over the hole, and

Card 1/2

MAL'TSEV, V.F., kand. khim. nauk; SYCH, V.Ya., inzh.

Phototurbidimetric determination of small contents of carbon in steel and alloys high in addition elements. Proizv. trub no.10: 114-119 '63. (MIRA 17:10)

L 29882-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AR6005812 SOURCE CODE: UR/0137/65/000/010/K006/K006

44
B

AUTHOR: Sych, V. Ya.; Mal'tsev, V. F.; Mal'chenko, L. P.

TITLE: Methods of hydrogen determination in titanium-alloy products

SOURCE: Ref. zh. Metallurgiya, Abs. 10K35

REF SOURCE: Sb. Proiz-vo trub. Vyp. 15. M., Metallurgiya, 1965, 135-136

TOPIC TAGS: titanium alloy, hydrogen, vacuum melting, hydrogen determination

ABSTRACT: Data have been compared concerning the H determination in Ti alloys by the vacuum-heat method at 1300C and by the vacuum-melting method at 1700C. The results obtained by the two methods differ only slightly. It was shown that pickling of samples does not lead to significant saturation of titanium with hydrogen. V. Romanova. [Translation of abstract.] [NT]

SUB CODE: 11/ SUBM DATE: none/

Card 1/1 FV UDC: 669.788:543.27

L 37088-66 EWP(k)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AR6005811 SOURCE CODE: UR/0137/65/000/010/K005/K005

35
B

AUTHOR: Sych, V. Ya.; Miroshnichenko, N. A.

TITLE: Potentiometric method for determination of carbon in thin walled pipe

27 14

SOURCE: Ref. zh. Metallurgiya, Abs. 10K29

REF SOURCE: Sb. Proiz-vo trub. Vyp. 15. M., Metallurgiya, 1965, 111-115

TOPIC TAGS: carbon, carbon steel, metal chemical analysis, calcination, alloy steel, pipe/Kh18N9T alloy steel

ABSTRACT: Carbon determination in high carbon alloyed steel and alloy is carried out using the barite potentiometric method. The effect of the fusing agent quality, the size of chips, and the method of removing impurity from the sample surface on the analysis results was determined. It was suggested that impurity be removed by preliminary calcination in an O_2 stream at 400 to 500°. To remove the fusing agent from CuO it must be calcinated at 800°. Pb must be remelted. The best fusing agent is Pb. The C in chromium steel can be determined without using a fusing agent, in such a case the temperature of combustion should be 1300°, the combustion time 10 min, and the sample thickness 0.3 mm. The results of carbon determination in thin walled Kh18N9T steel pipe showed good reproducibility. Disagreement amounts to only one thousandth of one per cent. A. Pomerantseva.

SUB CODE: 11, 13 DATE: none

Card 1/1 UDC: 669.784:543.257.1

Electrolytic method of...

of Ni a little later. A noticeable dissolution of steel starts at +400 mv. The dissolution intensity decreases with increasing potential, but above 900 mv it begins to rise. In $C_2H_2O_4$, the anodic behavior of the metals studied is less differentiated, and the curves for steel and chromium are in full agreement. To study the electrochemical dissolution of 1Kh18N9T steel, a melt of the following composition (in %) was prepared: C 0.07, Mn 0.93, Si 0.50, Cr 18.6, Ni 9.3, Ti 0.43, the rest Fe. The specimens were subjected to heat treatment at 1350°C with subsequent hardening in water. Anodic dissolution was conducted in a 3 % $(NH_4)_2S_2O_8$ solution acidified with H_2SO_4 at D_a 2 ma/cm^2 with a Pt cathode. After 1-2 min, the α-phase appeared on the ground surface. By measuring the grain width of the α-phase, 1 min and 4 hr after the beginning of electrolysis, it was found that only the α-phase was dissolved. [Abstracter's note: Complete translation.]

Card 2/2

B/081/62/000/009/020/075
B156/B101

AUTHORS: Mel'tsev, V. F., Sych, V. Ya.

TITLE: Photoelectric unit for colorimetry of micro- and ultramicro-quantitative colour substances

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 167, abstract 9Ye19(Sb. "Proizvo trub", no. 4, Khar'kov, Metallurgizdat, 1961, 157 - 160)

TEXT: A photoelectric colorimeter, with diaphragms for emitting a narrrow beam of light, a disc with a light filter assembly, and a cuvette of small diameter has been designed on the same system as the Davydov instrument. The unit comprises the colorimeter proper, a mirror galvanometer and a measuring device. The cuvette has a capacity of 5ml. The cuvette windows are of a larger diameter than the cuvette itself in order to keep the small-dimensioned cuvette stable in its holder. The mirror galvanometer is characterized by high sensitivity so as to permit of working with small quantities of substances and consequently with narrow beams of light.
[Abstracter's note: Complete translation.]
Card 1/1

D'YAKOV, V.; [illegible], Yu.

Reduce the delivery costs of canned fruit and vegetables. Mor. flot 25 no.9:10-11 S '65. (MIRA 18:9)

1. Zamestitel' nachal'nika pogruzochnogo uchastka Reniyskogo porta (for D'yakov). 2. Starshiy dispetcher-tekhnolog pogruzochnogo uchastka Reniyskogo porta (for Sych).

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Ca

Cyanine dyes from amino derivatives of benzothiazole A. I. Kiprianov and G. T. Pyl'ko. [illegible] 16, 24(1946). 5-*Dimethylamino-1-methylbenzothiazole*, m. 73°, prepd. from 5-amino-1-methylbenzothiazole and p-MeC$_6$H$_4$SO$_3$Me, or by a Herz [illegible] synthesis from PhNMe$_2$, yields a colored 2-N- (I) and a colorless 5-N- (II) *methiodide*, both m. 250° (decompn.), and a 2-N- (II), m. 242° and 5-N-*ethiodide*, m. 149°; the yield of 2-N-deriv. rises with increasing duration and temp. of reaction with the alkyl iodides. 5-*Diethylamino-1-methylbenzothiazole*, [illegible] 185-95° (2-N-*ethiodide* (III), m. 78°), was prepd. analogously. In pyridine (at the b. p.) HC(OEt)$_3$ and I or II yield 5,5'-*bis(dimethylamino)-2,2'-dimethyl-* (IV), m. 244°, or -2,2'-*diethylthiocarbocyanine iodide* (V) and 5,5'-*bis(diethylamino)-2,2'-diethylthiocarbocyanine iodide* (VI) is prepd. similarly from III. The 8-*Me deriv.* of IV is obtained when NMe$_3$ is added to the reaction mixt. The 8-*Me derivs.* of V and VI are prepd. similarly to them, using MeC(OEt)$_3$ in place of HC(OEt)$_3$. 2-Iodoquinoline ethiodide and I in EtOH-KOH (1 hr. at the b. p.) yield 5-*dimethylamino-1-methyl-2'-ethylthio-4-cyanine iodide*, m. 171°, while with quinoline methiodide 5-*dimethylamino-1',2-dimethylthio-cyanine iodide*, m. 176°, is obtained. Max. light absorption data are recorded for the above dyes. The dyes are valuable sensitizers of photographic emulsions. **Cyanine dyes from isomeric dimethylbenzothiazoles.** *Ibid.* 25-32.—Thioacetotoluidide in aq. NaOH and aq. K$_3$Fe(CN)$_6$ at 7° yield 1,3-*dimethylbenzothiazole*, b$_{16}$ 161-3°, the *ethiodide*, m. 150°, which gives 3,3'-*dimethyl-* or 3,3',8-*trimethyl-2,2'-diethylthiocarbocyanine iodide* when heated with HC(OEt)$_3$ or MeC(OEt)$_3$ [illegible] and Ac$_2$O in C$_6$H$_6$ resp. 2-Amino-4-methylthiophenol and Ac$_2$O [illegible] (at the b. p. for 2 hrs.) yield 1,4-*dimethylbenzothiazole*, b$_{10}$ 153-6°, m. 34°, the *ethiodide*, m. 105-6°, from which are prepd. 4,4'-*dimethyl-* and 4,4',8-*trimethyl-2,2'-diethylthiocarbocyanine iodide*. The sensitizing action of the isomeric dyes is unaffected by the position of the Me, but the greatest bathochromic effect is given by the 4,4'-di-Me derivs. H. C. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SYCH, YE. D.

Mbr., Inst. Organic Chemistry, Dept. Chem. Sci., Acad. Sci., -1944-. "Color and Structure of Cyanine Dyes: I. Thio-Carbocyanines with Electropositive Substituents," Zhur. Obshch. Khim., 15, No. 3, 1945; "Amino Derivatives of Thiocyanogenic Dyestuffs: III," Ukr. Khim. Zhur., No. 1, 1948; " . . . IV, " ibid., 14, No. 1, 1949

SYCH, Ye. D.

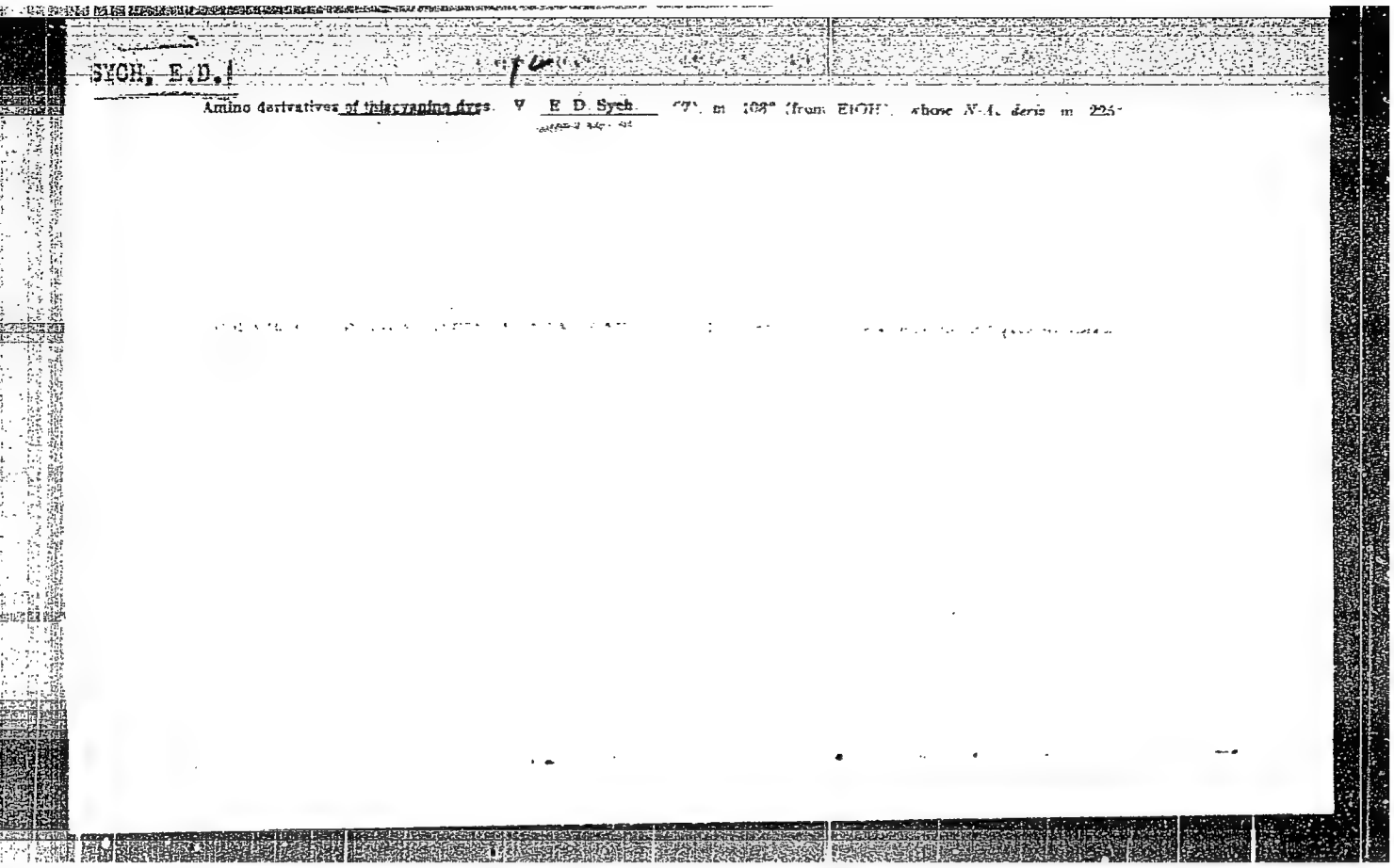
Sych, Ye. D. "Amino-derivatives of thiocyanate dyes", Part III, Ukr. khim. zhurnal, 1949, Issue 1, P. 45-49.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

SYCH, Ye. D.

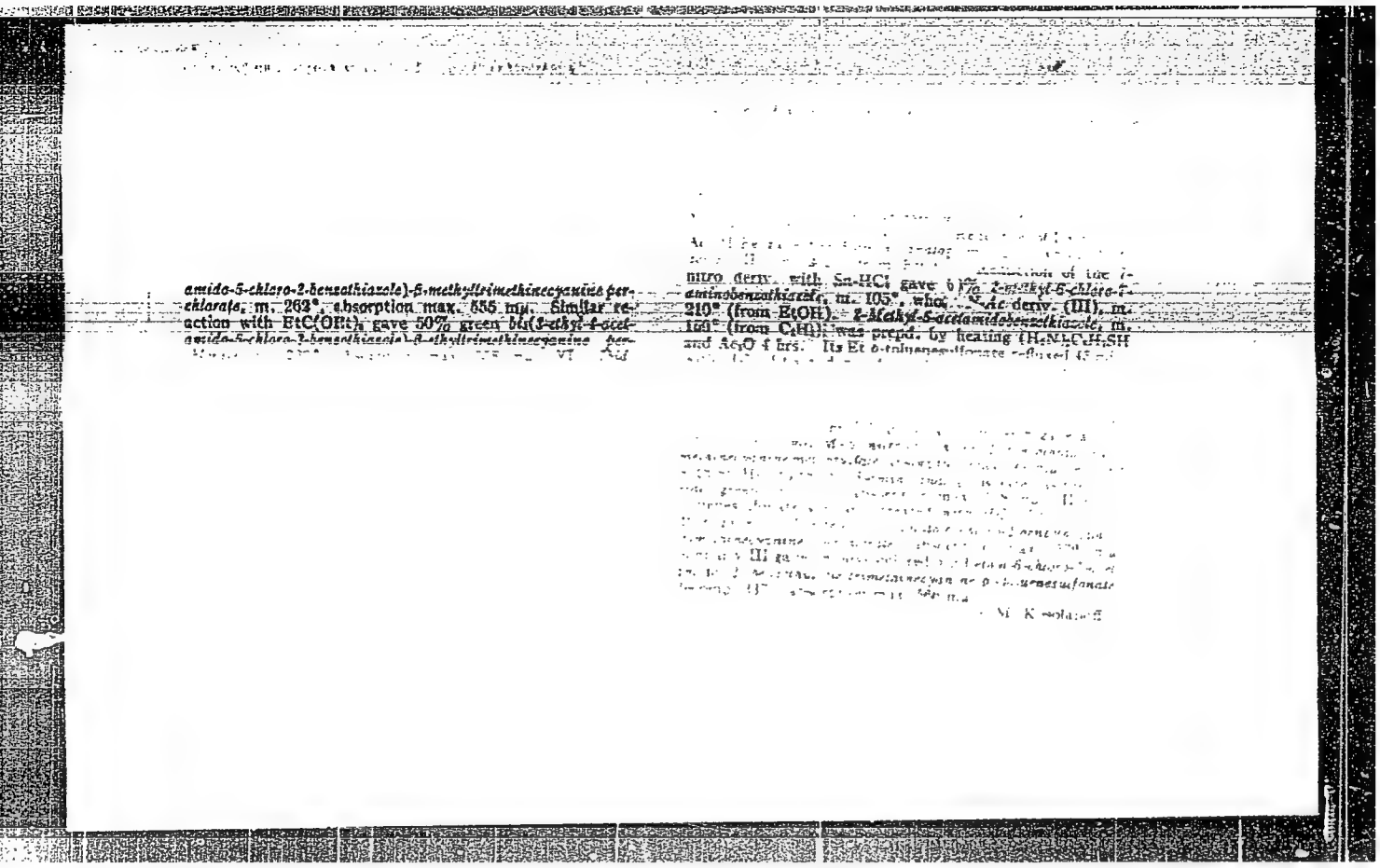
Sych, Ye. D. - "Amino-derivative thiocyahine dies, IV", Ukr. khim. zhurnal, Vol. XIV, Issue 2, 1949, p. 107-21, - Bibliog: p. 121.

SO: U-4392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 21, 1949).



SYCH, E.D.

Amino derivatives of thiacyanine dyes. V E. D. Sych. [illegible] m [illegible] (from EtOH), whose N-Me deriv m 225°



amido-5-chloro-2-benzothiazole)-5-methyltrimethinecyanine perchlorate, m. 263°, absorption max. 555 mμ. Similar reaction with EtC(OEt)$_3$ gave 50% green bis(3-ethyl-4-acetamido-5-chloro-2-benzothiazole)-5-ethyltrimethinecyanine per-

nitro deriv. with Sn-HCl gave 6-amino-2-methyl-5-chloro-2-aminobenzothiazole, m. 105°, whose Ac deriv. (III), m. 210° (from EtOH). 2-Methyl-5-acetamidobenzothiazole, m. 150° (from C$_6$H$_6$), was prepd. by heating (H$_2$NC$_6$H$_3$SH and Ac$_2$O 4 hrs. Its Et 6-toluenesulfonate

SYCH, Ye.D.

Amino derivatives of thiacyanine dyes. Report no.6. Ukr.khim.zhur. 18 no.2: 159-162 '52. (MLRA 6:9)

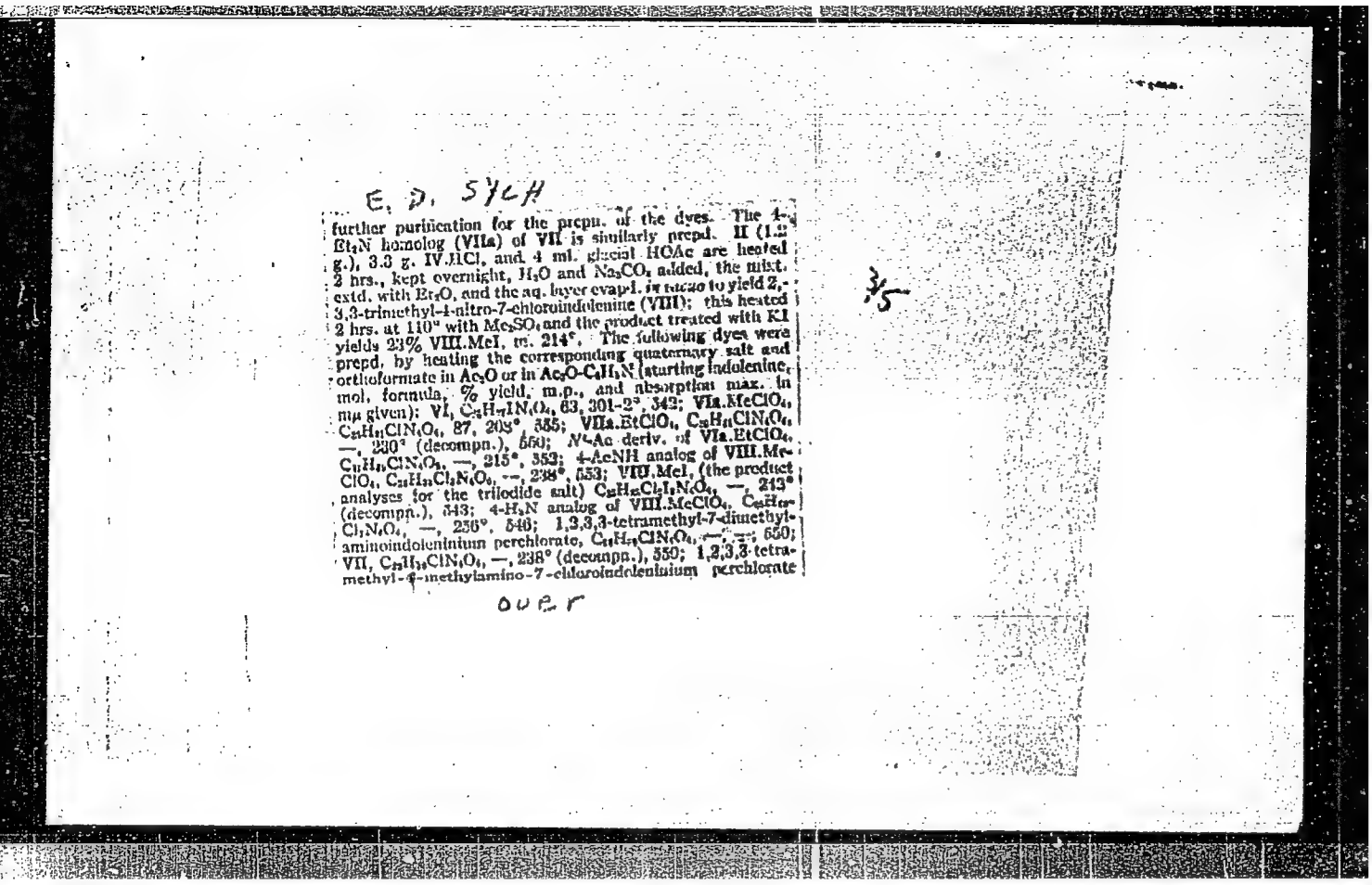
1. Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR.
(Cyanine dyes)

USSR

Synthesis of some indolenine derivatives and of indocarbocyanines. I. Indolenine with 4-nitro, 4-amino, 4-acetamino, and 4-dialkylamino groups on the benzene ring. E. D. Sych. *Ukrain. Khim. Zhur.* 19, 643-51(1953)(in Russian).—Indolenine (I) derivs., contg. a NO_2 group in the C_6H_4 ring, are prepd. by condensation of iso-PrCOMe (II) (Whitmore and Evers, *C.A.* 27, 1322) and *o*- or *m*-$O_2NC_6H_4NHNH_2$ (III) or 2,5-Cl(O_2N)$C_6H_3NHNH_2$ (IV) (Blanksma, *et al.*, *C.A.* 40, 6434[4]) in glacial HOAc. These can be transformed into H_2N, AcNH, and dialkylamino derivs. of I. Indocarbocyanine dyes are obtained by condensation of the quaternary salts of substituted I with orthoformate and their adsorption spectra are measured (in EtOH soln.). II, b. 92°, is prepd. in 65% yield by hydrolysis of $Me_2CBrCHBrMe$, b. 58-62°, which is obtained by bromination, in CCl_4 at −10°, of $Me_2C:CHMe$, b. 35-8° [prepd. by passing vapors of iso-AmOH over anhyd., granulated $Al_2(SO_4)_3$ in a copper tube at 400°]. III are prepd., by diazotation of *o*- and *m*-nitroanilines followed by $SnCl_2$ reduction, in 70 and 60% yield, resp. IV (49%), m. 150°, is similarly prepd. Heating 30 g. *m*-

(over)

III.HCl, 9 g. II, and 20 ml. glacial HOAc on a steam bath until the mixt. boils, alkalizing with Na_2CO_3, extg. with C_6H_6, and evapg. the ext. gives 22 g. thick oil which slowly crystallizes to yield 2,3,3-trimethyl-4-nitroindolenine (V), m. 133–7° (from EtOH). Crude V is used to prep. of the following quaternary salts: V.$EtClO_4$ (prepd. from V.p-$MeC_6H_4SO_3Et$); V.MeI (VI), m. 224°. VI, Me_2CO, and 10% NaOH are evapd. to give 1,3,3-trimethyl-2-methylene-4-nitro-2,3-dihydroindolenine, m. 146° (from petr. ether). VI is treated with metal Sn in HCl, treated with excess alkali, the residue extd. with Et_2O, and the calcd. amt. of 30% $HClO_4$ added to the ext. yields 2,3,4-trimethyl-4-aminoindolenine (VIa) $MeClO_4$ salt, m. 212°. V (4 g.) reduced in 15 ml. HCl with 8 g. Sn until the yellow color disappears, the light pink soln. treated with excess alkali, the ppt. extd. with Et_2O, the Et_2O evapd., the residue (2 g.), heated 12 hrs. in a sealed tube at 110–20° with 7 g. MeI, the mixt. treated with 15 ml. H_2O and Et_2O, and the aq. ext. filtered and evapd., yields 4 g. 2,3,3-trimethyl-4-dimethylaminoindolenine (VII), which is used without



E. D. 5YCH

further purification for the prepn. of the dyes. The 4-Et_2N homolog (VIIa) of VII is similarly prepd. II (1.2 g.), 3.3 g. IV.HCl, and 4 ml. glacial HOAc are heated 2 hrs., kept overnight, H_2O and Na_2CO_3 added, the mixt. extd. with Et_2O, and the aq. layer evapd. *in vacuo* to yield 2,3,3-trimethyl-4-nitro-7-chloroindolenine (VIII); this heated 2 hrs. at 110° with Me_2SO_4 and the product treated with KI yields 23% VIII.MeI, m. 214°. The following dyes were prepd. by heating the corresponding quaternary salt and ortholformate in Ac_2O or in Ac_2O-C_5H_5N (starting indolenine, mol. formula, % yield, m.p., and absorption max. in mμ given): VI, $C_{24}H_{27}IN_2O_4$, 63, 301-2°, 542; VIa.$MeClO_4$, $C_{25}H_{29}ClN_2O_6$, 87, 203°, 555; VIIa.$EtClO_4$, $C_{28}H_{35}ClN_2O_6$, —, 230° (decompn.), 560; *N*-Ac deriv. of VIIa.$EtClO_4$, $C_{30}H_{37}ClN_2O_7$, —, 215°, 553; 4-AcNH analog of VIII.MeClO$_4$, $C_{21}H_{23}Cl_2N_3O_6$, —, 238°, 553; VIII.MeI, (the product analyses for the triiodide salt) $C_{21}H_{23}ClI_3N_3O_4$, —, 213° (decompn.), 543; 4-H_2N analog of VIII.MeClO$_4$, $C_{21}H_{25}Cl_2N_3O_6$, —, 256°, 548; 1,3,3,3-tetramethyl-7-dimethylaminoindoleninium perchlorate, $C_{15}H_{21}ClN_2O_6$, —, —, 550; VII, $C_{21}H_{25}ClN_2O_6$, —, 238° (decompn.), 550; 1,2,3,3-tetramethyl-4-methylamino-7-chloroindoleninium perchlorate

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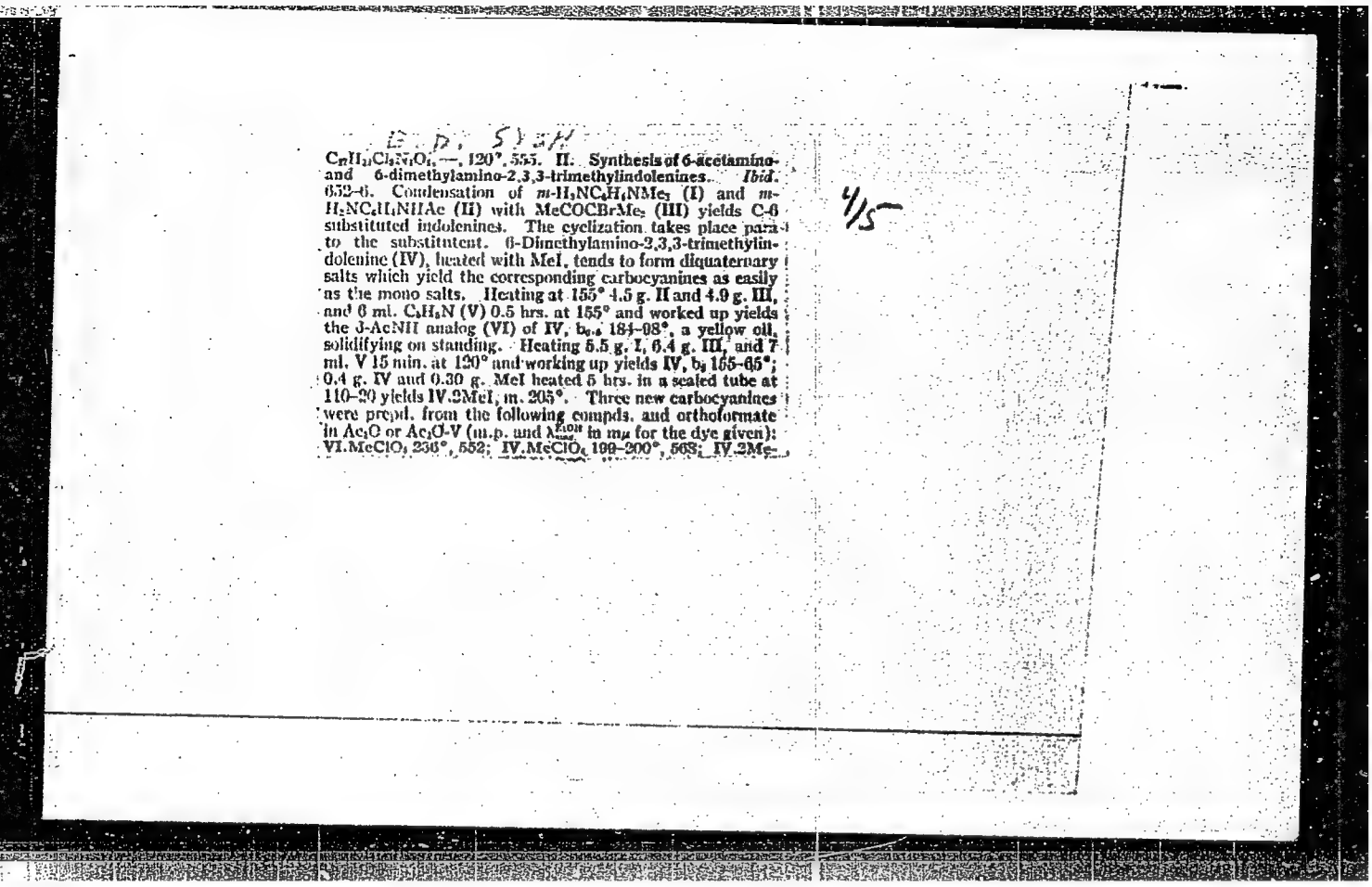


$C_{11}H_{11}Cl_2N_1O_4$.—, 120°, 555. II. Synthesis of 6-acetamino- and 6-dimethylamino-2,3,3-trimethylindolenines. *Ibid.* 652–6. Condensation of *m*-$H_2NC_6H_4NMe_2$ (I) and *m*-$H_2NC_6H_4NHAc$ (II) with $MeCOCBrMe_2$ (III) yields C-6 substituted indolenines. The cyclization takes place para to the substituent. 6-Dimethylamino-2,3,3-trimethylindolenine (IV), heated with MeI, tends to form diquaternary salts which yield the corresponding carbocyanines as easily as the mono salts. Heating at 155° 4.5 g. II and 4.9 g. III, and 6 ml. C_5H_5N (V) 0.5 hrs. at 155° and worked up yields the 5-AcNH analog (VI) of IV, $b_{0.4}$ 184–98°, a yellow oil, solidifying on standing. Heating 5.5 g. I, 6.4 g. III, and 7 ml. V 15 min. at 120° and working up yields IV, b_3 165–65°; 0.4 g. IV and 0.30 g. MeI heated 5 hrs. in a sealed tube at 110–20 yields IV.2MeI, m. 205°. Three new carbocyanines were prepd. from the following compds. and orthoformate in Ac_2O or Ac_2O-V (m.p. and λ_{max}^{EtOH} in mμ for the dye given): VI.$MeClO_4$, 256°, 552; IV.$MeClO_4$ 199–200°, 568; IV.2Me-

E. D, SYC, H

ClO_4, 335°, 540. III. Effect of substituents in benzene rings of symmetric indocarbocyanines on their absorption spectra. *Ibid.* 657–01.—Condensation of *p*-$H_2NC_6H_4NHAc$ (I) or *p*-$H_2NC_6H_4NMe_2$ (II) with $MeCOCBrMe_2$ (III) yields C-5 substitututed indolenines; while *p*-nitroaniline cannot be condensed. The shifts in $\lambda_{max.}$ caused by substitution of an Me_2N group on the benzene ring of indocarbocyanines are as follows (positions of attachment and Δ), in mμ): 5, 5′, +66; 6, 6′, +23; 4, 4′ or 7, 7′ +5. The Et_2N groups in the 5,5′-positions are true auxochromes; alkylated, it deepens the color of the dye; acylated, it heightens it; its effect on the color is reduced to zero by salt formation. Boiling 9 g. II, 11 g. III, and 10 ml. C_5H_5N 0.5 hr. yields 35% 5-dimethylamino-2,3,3-trimethylindolenine (IV), b$_3$ 130–3. Heating 1.7 g. IV, with 1.3 g. MeI 2 hrs. in a sealed tube on a steam bath yields IV.2MeI, m. 322°. Indocarbocyanines were prepd. from the following compds. (m.p. and $\lambda_{max.}$ in mμ of the dye given): IV.$MeClO_4$, 295°, 605–608; 5-acetamido-2,3,3-trimethylindolenine-$EtClO_4$, 285°, 578.

Elisabeth Barabash.

5/5

SYCH, Ye.D.

Synthesis of certain derivatives of indolenine and indocarbocyanines. Part 2. Synthesis of 6-acetamino- and 6-cimethylamino-2,3,3-trimethylindolenines. Ukr.khim. zhur. 19 no.6:652-656 '53. (MIRA 8:5)

1. Institut organicheskoy khimii Akademii nauk USSR.
(Pseudoindole)

SYCH, Ye.D.

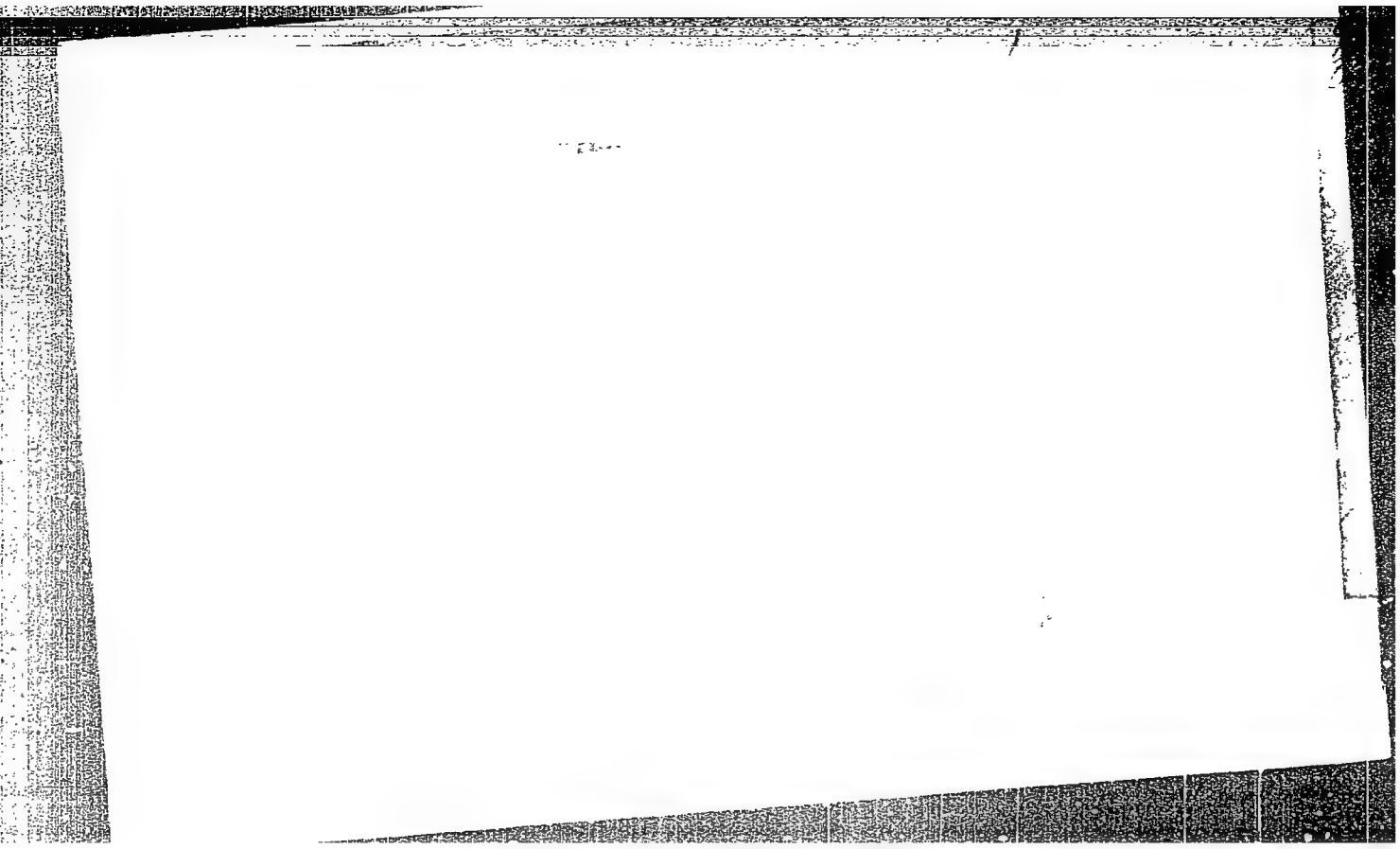
Synthesis of certain derivatives of indolenine and indocarbocyanines. Part 3. Effect of substitutes in the benzene rings of symmetric indocarbocyanines on their absorption spectra. Ukr.khim.zhur. 19 no.6:657-661 '53. (MLRA 8:5)

1. Institut organicheskoy khimii Akademii nauk USSR
(Carbocyanine) (Absorption spectra)

SYCH, Ye.D.

Thiazolocarbocyanines with aryl radicals in the thiazole rings. Part 1. 4,4'-diarylthiazolocarbocyanines. Ukr. khim.zhur. 22 no.1: 80-83 '56. (MLRA 9:6)

1. Institut organicheskoy khimii AN USSR.
(Thiazolocarbocyanines)



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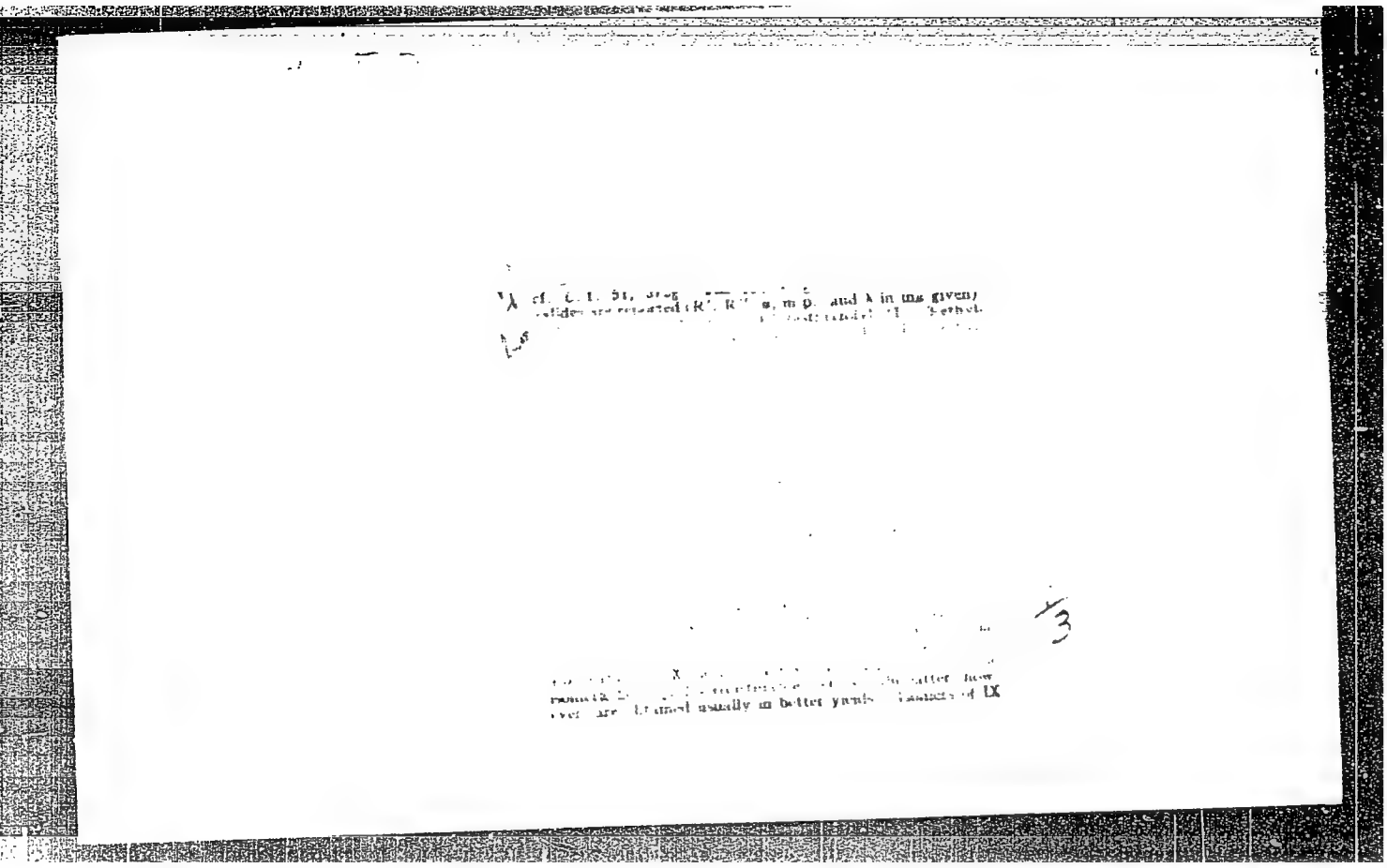
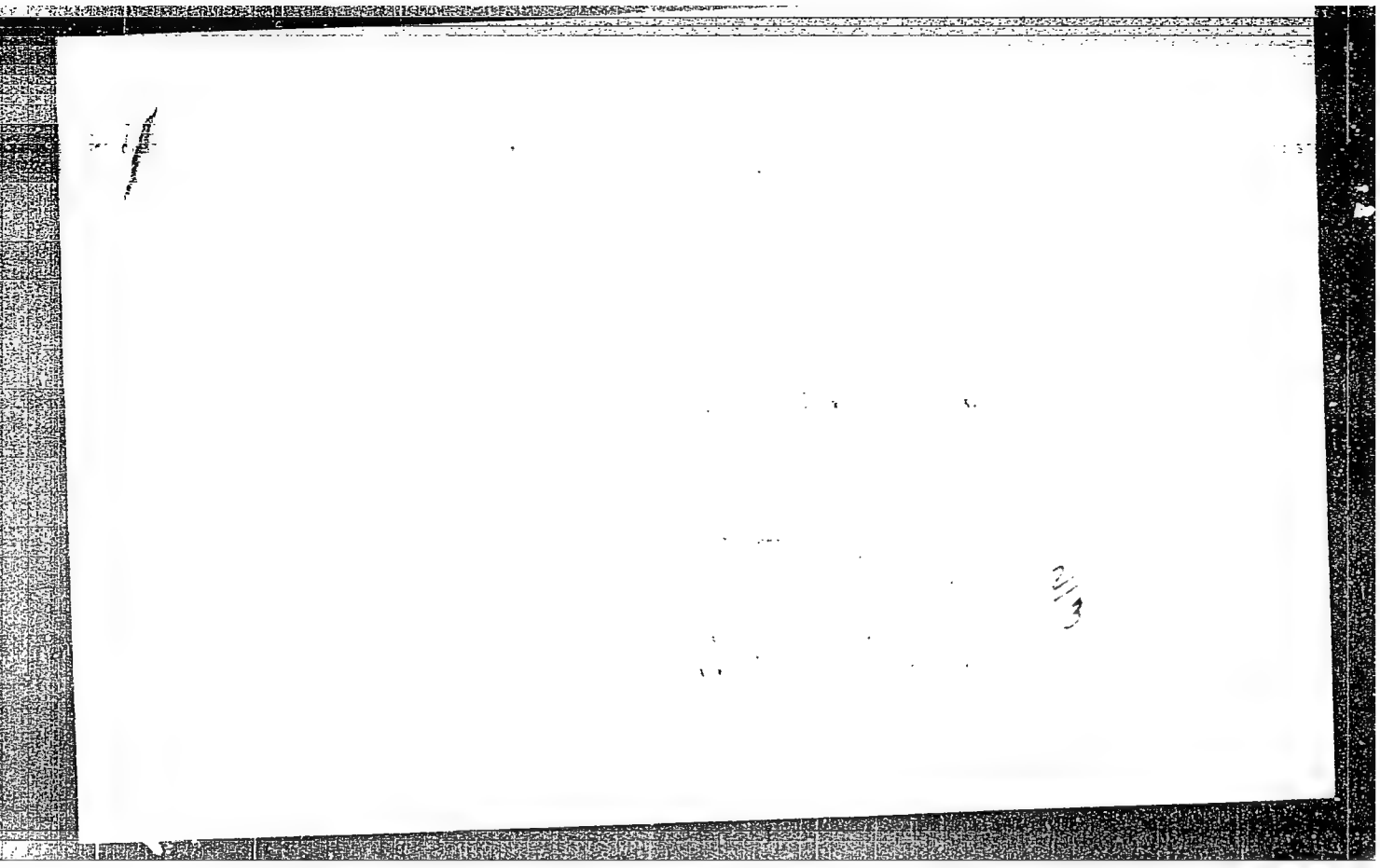
LPH

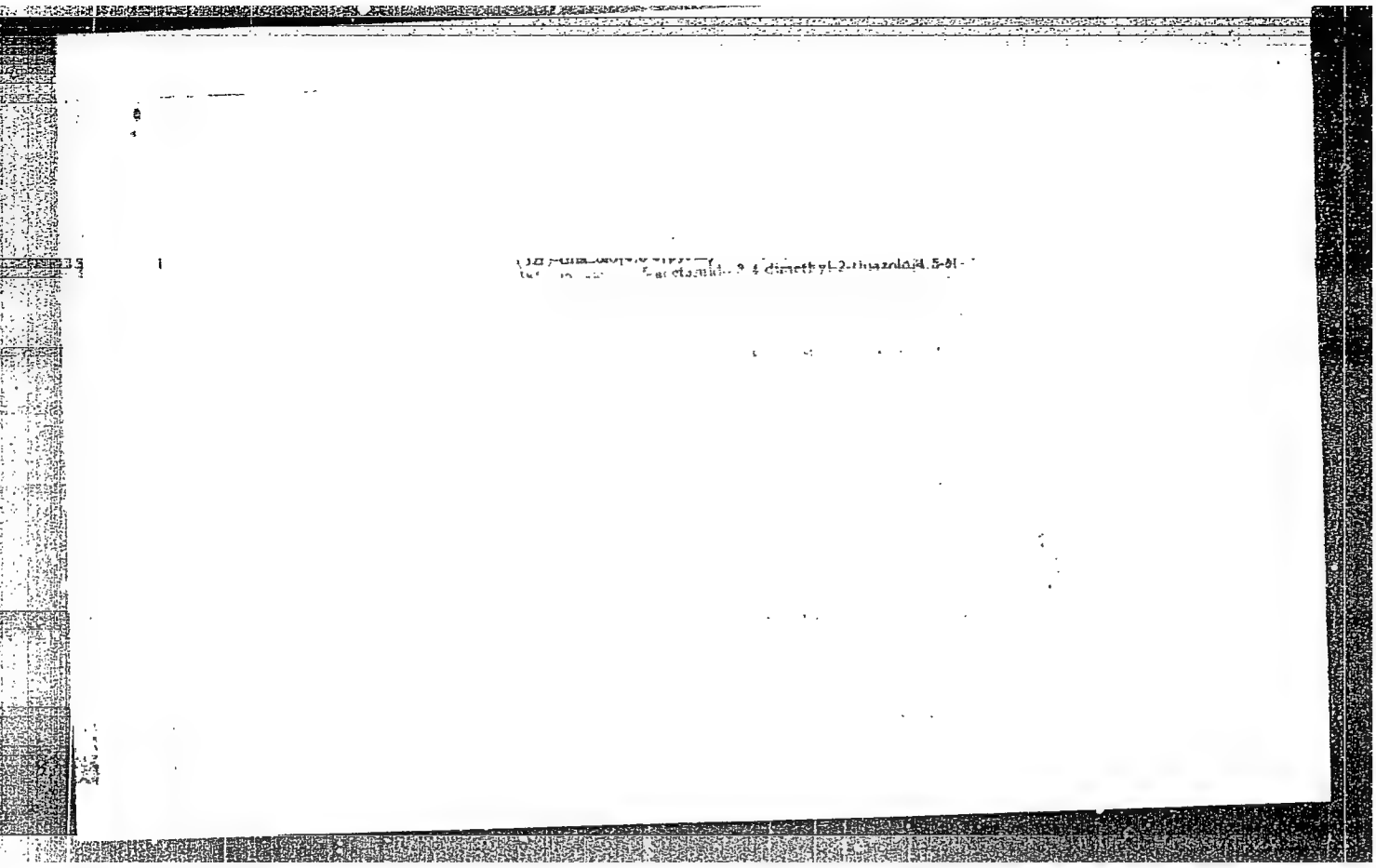
SYCH, Ye.D.

SYCH, Ye.D.; BABICHEV, F.S.

Andrei Ivanovich Kiprianov; on the occasion of his 60th birthday.
Ukr.khim.zhur. 22 no.4:550-553 '56. (MIRA 10:10)
(Kiprianov, Andrei Ivanovich, 1896-)







SYCH, Ye.D.

Thiazolocarbocyanines with aryl radicals in thiazol nuclei. Part 3: Metoxyarylthiazolocyanines. Ukr. khim. zhur. 24 no.1:79-88 '58. (MIRA 11:4)

1. Institut organicheskoy khimii AN USSR.
(Thiazole--Spectra) (Dyes)

SYCH, Ye.D.

Thiazolocarbocyanines with aryl radicals in thiazol nuclei. Part 4: Space hindrance in 5-(α-naphtyl)-thiazols. Ukr. khim. zhur. 24 no.1:89-92 '58. (MIRA 11:4)

1.Institut organicheskoy khimii AN USSR.
(Thiazole--Spectra) (Stereochemistry)

SYCH, Ye.D.

Thiazolocarbocyanines with aryl radicals in thiazol nuclei.
Part 5: Biscyanines and bisstyrills of the thiazol series.
Ukr. khim. zhur. 24 no.1:93-98 '58. (MIRA 11:4)

1.Institut organicheskoy khimii AN USSR.
(Biphenyl) (Dyes and dyeing)

SICH, Ye.D.; TOMASHEVSKIY, O.I.

Synthesis of 2-methyl-4-nitrobenzothiazole. Ukr. khim. zhur. (URZ. 14:3)
27 no. 1:80-82 '61.

1. Institut organicheskoy khimii AN USSR.
(Benzothiazole)

SYCH, Ye.D.

Thiazolocarbocyanines with aryl radicals in the thiazole nuclei. Part 8: Unsymmetrical thiazolocarbocyanines. Ukr. khim. zhur. 27 no. 1:83-87 '61. (MIRA 14:2)

1. Institut organicheskoy khimii AN USSR.
(Thiazolocarbocyanine)

SYCH, Ye.D.; KIPRIANOV, A.I.

Steric hindrances in 4,4'-diarylthiazolocyanine molecules. Zhur. ob.khim. 31 no.12:3926-3929 D '61. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.
(Thiazolocarbocyanine--Spectra)
(Steric hindrance)

SYCH, Ye.D.; SHULEZHKO, A.A.; KIPRIANOV, A.I.

Cyanine dyes from 2-methylacenaphtheno-(1, 2-d)-thiazole. Ukr. khim.zhur. 28 no.2:213-218 '62. (MIRA 15:3)

1. Institut organicheskoy khimii AN USSR.
(Cyanines)

SYCH, Ye. D.; BELAYA, Zh. N.

Isomeric nitro-2-methylbenzothiazoles and cyanine dyes derived from the. Ukr. khim. zhur. 28 no.3:362-367 '62. (MIRA 15:10)

1. Institut organicheskoy khimii AN UkrSSR.

(Benzothiazole) (Cyanines)

SYCH, Ye. D.; UMANSKAYA, L. P.

Cyanine dyes from 6.7-dihydro-4,5-benzobenzthiazole and 4,5-dihydro-6,7-benzobenzthiazole. Ukr. khim. zhur. 28 no.6:714-718 '62. (MIRA 15:10)

1. Institut organicheskoy khimii AN UkrSSR.

(Benzothiazole) (Cyanine dyes)

S/073/62/028/009/006/011
A057/A126

Thiazole cyanines. XI. Synthesis of...

sized by boiling equimolecular quantities of the corresponding ethyl-p-toluol-sulphonates of 4-aryl- or 5-arylthiazole, iodine ethylate of 2-methylmercapto-benzthiazole and triethylamine in absolute alcohol. Trimethine cyanines were prepared in two ways: 1) Equal amounts of the ethyl-p-toluolsulphonate of the thiazole derivative and the corresponding orthoester were boiled in pyridine after adding acetic anhydride, or 2) (suggestion by N. N. Sveshnikov, and N. S. Stokovskaya) equimolecular amounts of ethyl-p-toluolsulphonate of the corresponding aryl-2-methylthiazole, ethoxymethylene malonic ester and triethylamine were heated in absolute alcohol. Merocyanines with the substitute in position 4 were obtained by heating equimolecular amounts of the quaternary salts of the corresponding 2-anilinevinyl-derivatives of thiazole with 3-ethylrhodanine in absolute alcohol and triethylamine, while the 5-substituted compound was prepared by heating the quaternary salts of the corresponding derivatives of 2-methylthiazole with 5-aniline-methine-3-ethylrhodanine in pyridine. The rhodacyanines were synthesized by heating 0.001 mole of a merocyanine with 0.002 mole dimethylsulfate, the excess of the latter removed and the purified residue mixed with 2 ml pyridine and 0.001 mole of the quaternary salt of the thiazole derivative and boiled for 1 hour. The characteristic data of all synthesized

Card 2/3

Thiazole cyanines. XI. Synthesis of... S/073/62/028/009/006/011
A057/A126

dyestuffs are presented in tables.. There are 6 tables.

ASSOCIATION: Institut organicheskoy khimii AN USSR (Institute of Organic Chemistry, AS UkrSSR)

SUBMITTED: December 10, 1961

Card 3/3

SYCH, Ye.D.; SMAZNAYA-IL'INA, Ye.D.

Thiazolocyanines. Part 9: Synthesis of thiazolocyanines from thiazole derivatives with heterocyclic residues as substituents. Zhur.ob.khim. 32 no.3:984-990 Mr '62. (MIRA 15:3)

1. Institut organicheskoy khimii AN USSR.
(Thiazolocarbocyanine) (Thiazole)

SYCH, Ye.D.; SMAZNAYA-IL'INA, Ye.D.

Thiazolocyanines. Part 11: Synthesis of thiazolocyanines from derivatives of thiazole with heterocyclic residues as substitutes. Ukr.khim.zhur. 28 no.9:1087-1095 '62. (MIRA 15:12)

1. Institut organicheskoy khimii AN UkrSSR.
(Cyanine dyes)
(Thiazole)

S/079/63/033/001/005/023
D205/D307

AUTHORS: Sych, Ye. D. and Smaznaya-Il'ina, Ye. D.

TITLE: Thiazolecyanines. X. Cyanine dyes from 2-methyl-4-styryl- and 2-methyl-5-styryl thiazoles

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 74-79

TEXT: Iodomethyl styryl ketone (I) prepared by treating 4-phenyl-1,3,4-tribromobutanone-2 in acetone with NaI, was reacted with thioacetamide to give 2-methyl-4-styrylthiazole (A), with a m.p. of 61°C. The vigorous initial reaction of I and thioacetamide was controlled by cooling, and the mixture was then heated for 15 min to 100°C; conc. HCl and benzene were then added and the hydrochloride of A was filtered off, washed and recrystallized. A was then liberated with ammonia. 2-methyl-5-styrylthiazole (B) melting at 124°C, was synthesized by reacting at 130°C, P_2S_5 with ω-acetaminomethyl styryl ketone (obtained by forming the urotropin complex of I, boiling it with MeOH/HCl, and acetylating the aminomethyl styryl

Card 1/2

Thiazolecyanines. X. ...

ketone salt produced with acetic anhydride in aqueous solution). The quaternary salts of A and B were then used to give a series of cyanine dyes: mono- and trimethynecyanines, styryls and merocyanines. Spectroscopic investigations of these dyes in alcoholic solutions showed that the styryl group in position 5 was more strongly conjugated with the polymethyne chromophore than was the styryl group in position 4. There is 1 table.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry of the Academy of Sciences of the Ukrainian SSR)

SUBMITTED: December 8, 1961

Card 2/2

SYCH, Ye. D.; UMANSKAYA, L. P.

Nitrogen and sulfur atoms as conductors of conjugation in the molecules of isomeric 2-styryl-4-arylthiazole and 2-styryl-5-arylthiazole with polar substituents. Zhur. ob. khim. 33 no.1: 80-83 '63. (MIRA 16:1)

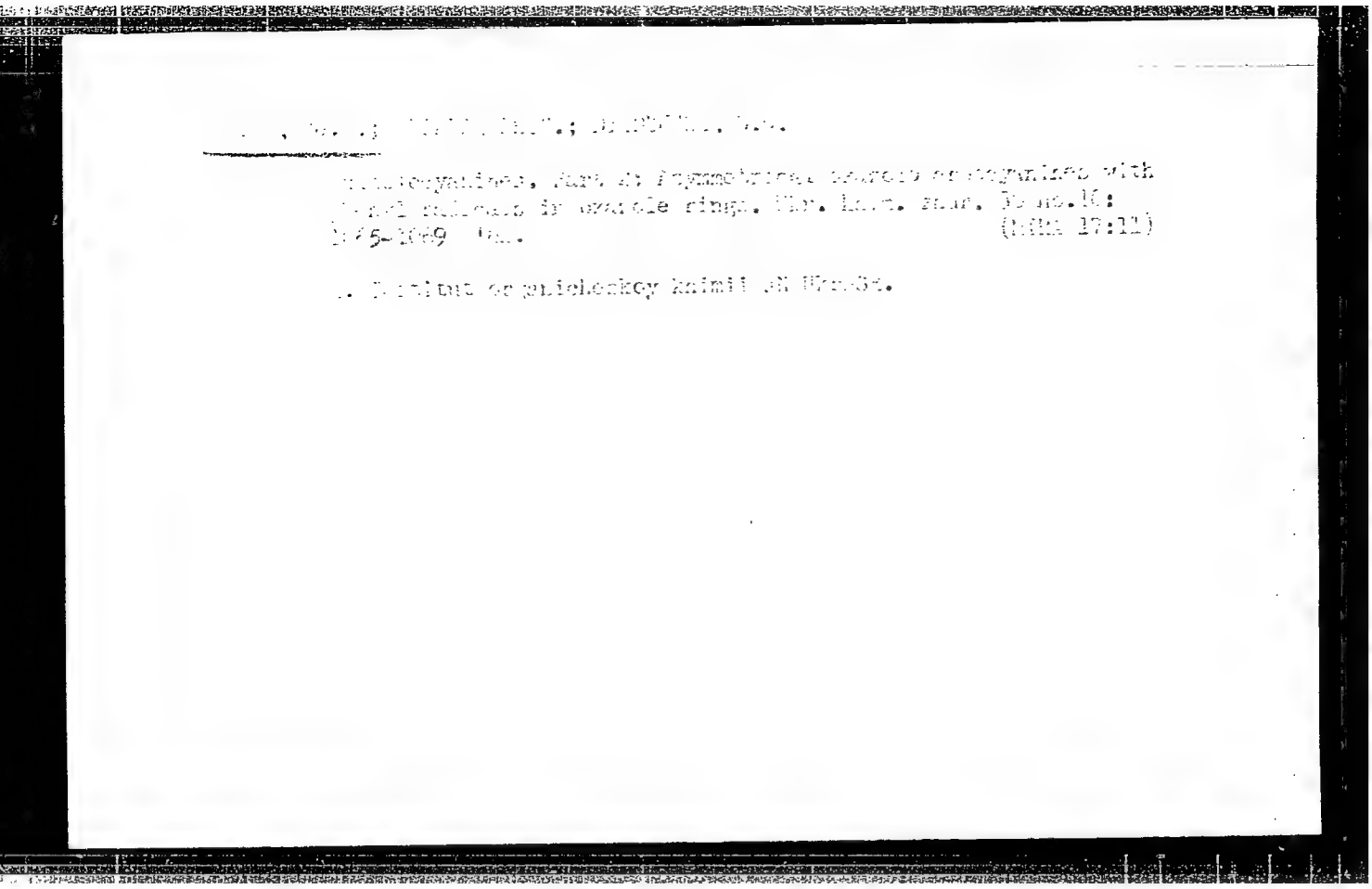
1. Institut organicheskoy khimii AN Ukrainskoy SSR.

(Thiazole) (Conjugation(Chemistry))
(Substitution(Chemistry)

SYCH, Ye.D.; BELAYA, Zh.N.

Synthesis of some oxazole derivatives. 2-mercapto- and 2-methylmercapto-4-aryl oxazoles. Zhur. ob. khim. 33 no.5: 1507-1512 My '63. (MIRA 16:6)

1. Institut organicheskoy khimii AN UkrSSR.
(Oxazole)



SYCH, Ye.D.; UMANSKAYA, L. P.

Thiazolocyanines. Part 12: Polar substituents in thiazole rings of thiazolocyanines. Zhur. ob. Khim. 34 no.6:2068-2074 Je '64. (MIRA 17:7)

1. Institut organicheskoy khimii AN UkrSSR.

SYCH, Ye.D.; UMANSKAYA, L.P.

δ,γ-Polymethylenethiazolo - and oxazolocarbocyanines. Ukr.khim. zhur. 31 no.2:201-206 '65. (MIRA 18:4)

1. Institut organicheskoy khimii AN UkrSSR.

SYCH, Ye.D.; PERKOVSKAYA, Ye.K.

Biscyanines from two-quaternary salts of bisazolylalkanes.
Zhur. org. khim. 1 no.8:1479-1483 Ag '65. (MIRA 18:11)

1. Institut organicheskoy khimii AN UkrSSR

L 17999-66 EWT(d)/EWT(m)/EWP(f)/T/EWP(t) IJP(c) JD/WB/WE

ACC NR: AP6007936 SOURCE CODE: UR/0318/66/000/001/0007/0009

AUTHOR: Sych, Yu. I.; Makhov, A. F.; Stekhun, A. I.; Rogacheva, O. I.

ORG: none

TITLE: Improvements in the refining technology of fuels for jet engines

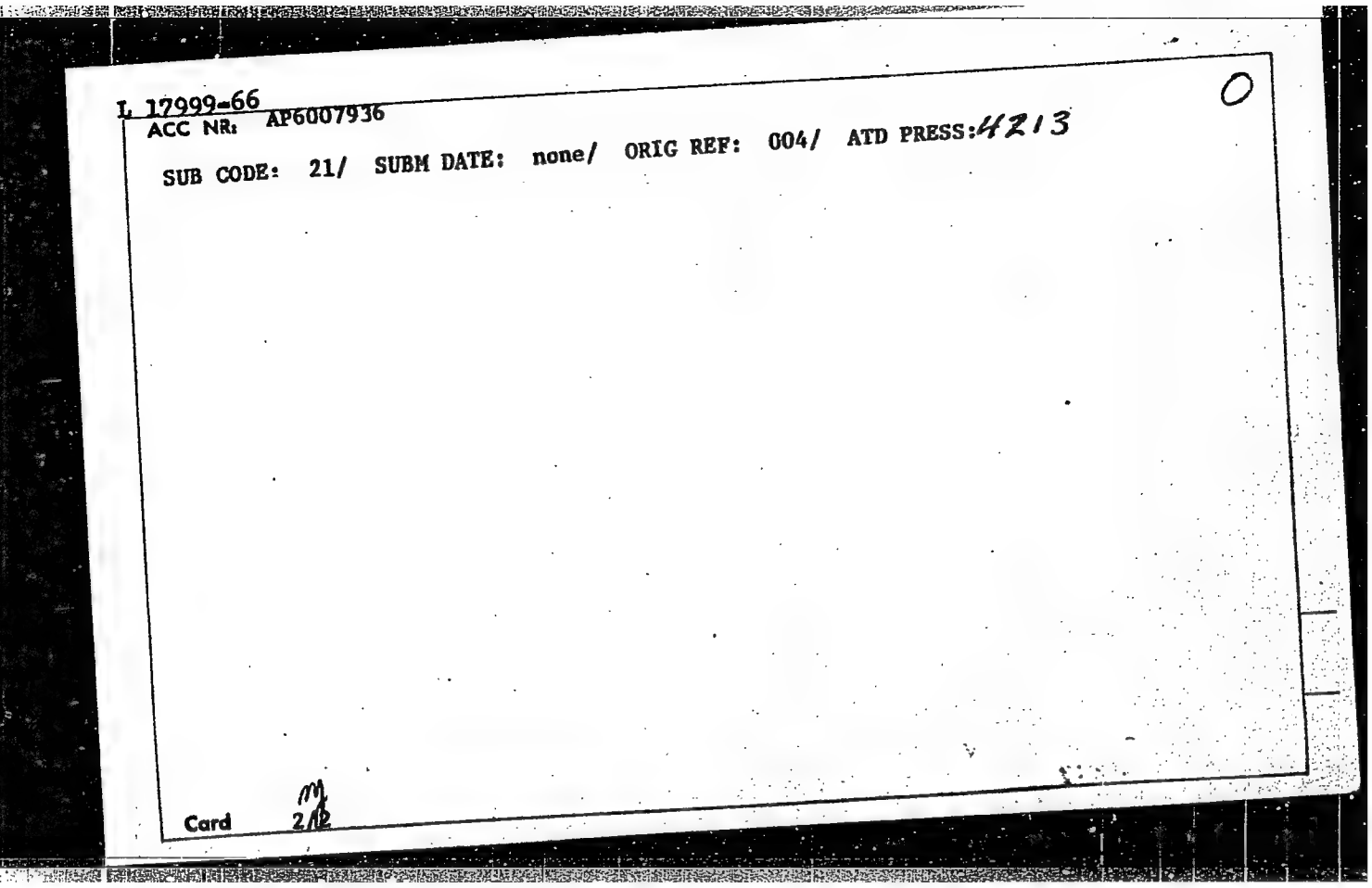
SOURCE: Neftepererabotka i neftekhimiya, no. 1, 1966, 7-9

TOPIC TAGS: jet fuel, fuel contamination

ABSTRACT: Improvements have been introduced in the continuous alkaline- and water-wash process for jet fuel refining which involves removal of hydrogen sulfide, organic acids, and some mercaptans. The old process had the disadvantage that alkaline and aqueous emulsions were formed in the respective wash steps and were entrained downstream, causing certain difficulties including fuel contamination with mechanical particles found in technical water. The main improvement consisted in the installation of glass-wool filters after each of the wash steps, which break up the emulsions and remove mechanical contaminants. A flow sheet of the improved process is given in the source. The improvements made it possible to produce high-purity jet fuel which meets GOST 10227-62 specifications and whose mechanical-contaminant content does not exceed 0.0002—0.0003% (determined as per GOST 10577-63). It is noted that removal of contaminants from jet fuels improves thermal stability, decreases corrosivity and filter clogging, and therefore improves aircraft operational reliability. Orig. art. has: 1 figure and 1 table.

UDC: 665.664.22:621.45—6 [SM]

Card 1/2



L 17999-66
ACC NR: AP6007936

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 004/ ATD PRESS: 4213

Card 2/2

L 58471-65 EPA/EWT(m)/EPF(c)/EWP(f)/EPF(n)-2/EPR/T/EPA(bb)-2 Pab-4/
Pr-4/Ps-4 WW/GS

ACCESSION NR: AP5017165 UR/0000/65/000/007/0019/0022

AUTHOR: Syunyaev, Z. I.; Syunyaeva, R. A.; Kopacheva, G. I.; Bakarov, N. S.

TITLE: Production of gas turbine fuels from distillates coking sulfur residues

SOURCE: Neftepererabotka i neftekhimiya no. 7 1964 19-22

TOPIC TAGS: petroleum refining, gas turbine fuel

Abstract: The incorporation of coke installations into the scheme of oil refineries permits production of 10 to 15% coke and 40 to 70% [illegible] gas turbine fuels, depending on the quality of the [illegible]. In 1962, 20 experimental industrial [illegible] at the Novo-Ufimsk oil refinery; their average [illegible] the limits, except for [illegible] content [illegible]. The increased content of mechanical impurities [illegible] in the gas turbine fuels was due to the [illegible] of the coking residue [illegible]. The [illegible] are concentrated in the form of a finely dispersed [illegible] (ash content 0.01-0.02%). Gas turbine fuels of the requisite qualities could be produced by the addition of suitably prepared cracking [illegible]. A specific technological scheme was

Card 1/2

L 58471-65

ACCESSION NR: AP5017145

developed to provide for the production of acceptable gas turbine fuels. The variation of production of gas turbine fuels from kerosene-gas oil [illegible] of catalytic cracking may prove the most expedient in the [illegible] when the kero- [illegible] gas turbine fuel or mazut without [illegible] 2 figure and 2 tables.

ASSOCIATION: Novo-Ufimskiy neftaperarabatyvayushchiy zavod (Novo-Ufimsk Oil Refinery); Ufimskiy neftyanoy institut (Ufa Petroleum Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: FP

NR REF SOV: 000 OTHER: 00 JPRS

TSARAPKIN, S.R.; SYCH, Z.G.

Effect of Pu^{239}, Sr^{90} on the bone marrow in rats. Med.rad. 4 no.6:75-77 Je '59. (MIRA 12:8)

(BONE MARROW, eff. of radiations, plutonium^{239} and strontium ^{89} & ^{90} in rats (Rus))
(STRONTIUM, radioactive strontium ^{89} & 90, eff. on bone marrow in rats (Rus))
(PLUTONIUM, eff. on bone marrow in rats (Rus))

IL'IN, V. (Frunze); ZAYTSEV, V. (Guynaksk, Dagestanskoy ASSR); YEFREMENKOV, M. (Serpukhov, Moskovskoy obl.); CHUGAYEVSKIY, N., inzh. (Moskovskaya oblast'); BRUKVA, N. (Kiyev); SYCHAYEV, S. (Mytishchi); YEVTEYEV, V. (Rostov-na-Donu)

Exchange of experience. Radio no.4:20,33,36,39,40,53 Ap '65.
(MIRA 18:5)

SYCHENIKOV, I. A., Cand of Med Sci -- (diss) "Initial Circulatory Suture of an Artery in an Infected Wound; Experimental Studies," Moscow, 1959, 19 pp (First Moscow Medical Institute im I. M. Sechenov) (KL, 7-60, 110)

SYCHENNIKOV, I.A.

Primary circular suturing of arteries in infected wounds; experimental study [with summary in English]. Khirurgiia 34 no.6:98-106 Je '58 (MIRA 11:8)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - prof. V.V. Kovanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

(WOUNDS & INJURIES, experimental
circular suturing of arteries in exper. infected wds (Rus))
(ARTERIES, surgery
same (Rus))

SYCHENIKOV, I.A.; RABIN, A.G.

Method for releasing tension on a circular arterial suture in experiment. Eksper. khir. 5 no.4:43-47 Je-Ag '60. (MIRA 13:12)
(ARTERIES--SURGERY) (SUTURES)

SYCHENIKOV, I.A.

Model of an infected wound for the approval of the use of a circular suture of an artery. Trudy 1-go MMI 16:128-132'62.
(MIRA 16:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V.V.Kovanov) Pervogo Moskovskogo ordena Lenina meditsinskogo instituta.
(SUTURES) (ARTERIES—SURGERY)

SYCHENIKOV, I.A.

Elimination of tension in a circular arterial suture in case of an infected experimental wound. Trudy 1-go MMI 16:133-138'62. (MIRA 16:6)

1. Iz kafedry operativnoy khirurgii i topograficheskoy anatomii (zav. - chlen-korrespondent AMN SSSR prof. V.V. Kovanov) Pervogo Moskovskogo ordena Lenina meditsinskogo instituta.
(SUTURES) (ARTERIES--SURGERY)

ANIKINA, T.I., dots.; BOGUSLAVSKAYA, T.B., ass.; BOMASH, Yu.M., dots.; GEYMAN, D.V., ass.; GRENADEROV, Yu.V., ass.; DOBROVA, N.B., ass.; KLEPIKOV, V.A., ass.; ZUBRILOVA, A.V., ass.; KULIK, V.P., mlad. nauchn. sotr.; NIKOLAYEV, F.D., dots. [deceased]; SYCHENIKOV, I.A., dots.; TRAVIN, A.A., ispoln. obyazannosti prof.; RYBALKIN, P.Ye., ass.; KOVANOV, V.V., prof., red.; PROKOF'YEV, V.P., red.; ZAGOREL'SKIY, Ya.L., tekhn. red.

[Special methodology for practical work in topographic anatomy and operative surgery] Chastnaia metodika prakticheskikh zaniatii po topograficheskoi anatomii i operativnoi khirurgii. Izd.2., perer. i dop. Pod red. V.V.Kovanova. Moskva, 1963. 224 p. (MIRA 16:12)

1. Moscow. Pervyy meditsinskiy institut. 2. Kollektiv prepodavateley kafedry operativnoy khirurgii i topograficheskoy anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova (for all except Prokof'yev, Zagorel'skiy). 3. Zaveduyushchiy kafedroy operativnoy khirurgii i topograficheskoy anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova , chlena-korrespondent AMN SSSR (for Kovanov).

(ANATOMY, SURGICAL AND TOPOGRAPHICAL)
(SURGERY, OPERATIVE)

1. P. SYCHENKO

2. USSR (600)

4. Barley

7. 27 centners of barley per hectare. Dost sel(khoz. no. 1. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

TSVETKOV, V.N., kand.tekhn.nauk, dotsent; SYCHENKOVA, O.P., inzh.

Bending strength of the sole construction fastened with the thread-cement system. Nauch.trudy MTILP no.23:112-149 '61. (MIRA 15:9)

1. Kafedra tekhnologii izdeliy iz kozhi Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Shoe manufacture)

TSVETKOV, V.N., kand.tekhn.nauk, dotsent; SYCHENKOVA, O.P., inzh.

Stiffness in bending of the footwear manufactured by the inseam method. Izv.vys.ucheb.zav.; tekh.leg.prom. no.1:115-125 '63. (MIRA 16:3)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. (Shoe manufacture)

SYCHEV, A.

37409. Ispol'zovat' Dikorastushchiy Klever Dlya Poseva Na Kolkhoznykh Polyakh. (Iz Opyta Kolkhozov Ivanin. Rayona). V Sb: Za Vysokuyu Kul'turu Zemledeliya. Kursk, 1949, s. 23-30.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

CHURBANOV, V.; SYCHEV, A.

Economic growth of socialist Mongolia. Vnesh. torg. 43 no.7:3-5 '63. (MIRA 16:8)

(Mongolia--Economic conditions)

SYCHEV, A. A.: Master Med Sci (diss) -- "The conditions of training work and near-sightedness in students of the city of Khar'kov". Khar'kov, 1958. 15 pp (Khar'kov State Med Inst), 200 copies (KL, No 4, 1959, 132)

Я. И. Хургин

Стационарные импульсные процессы в статистической радиофизике.

11 июня
(с 18 до 22 часов)

М. С. Александров

Распределение разности фаз колебаний в совокупности флюктуирующего сигнала, шумов и коррелированной шумовой помехи.

В. С. [illegible]

Некоторые теоремы конструктивной теории информации для дискретного канала с нулевой памятью.

О. С. [illegible]

Определение вероятности потери сообщения в транспортированных [illegible] с [illegible] потерями.

Р. Р. Варшамов

Некоторые вопросы теории линейного [illegible].

12 июня
(с 10 до 16 часов)

Н. П. [illegible]

Системы передачи дискретных сигналов с фазоразностной манипуляцией.

Н. М. [illegible]

Оптимальный прием сигналов в КИМ с [illegible]

Г. Н. [illegible],
Г. М. [illegible]

Свет как канал передачи информации

Г. Н. [illegible],
Г. М. [illegible]

О квантовых флюктуациях электромагнитного поля в связи с проблемой передачи и приема информации.

А. А. [illegible]

Некоторые соображения по построению преобразования «ВАЛ-КОД».

12 июня
(с 18 до 22 часов)

В. И. [illegible]

Групповая передача элементарных сигналов и ее преимущества.

Л. Л. [illegible]

Вопросы потенциальной помехоустойчивости при [illegible] сигналах.

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORiE), Moscow, 8-12 June. 1959

SYCHEV, A.A., assistent

Activity of the visual analysor in myopic school children under constant and interrupted correction. Gig. i san. 24 no.10:32-39 '59. (MIRA 13:1)

1. Iz kafedry gigiyeny detey i podrostkov Khar'kovskogo meditsinskogo instituta.

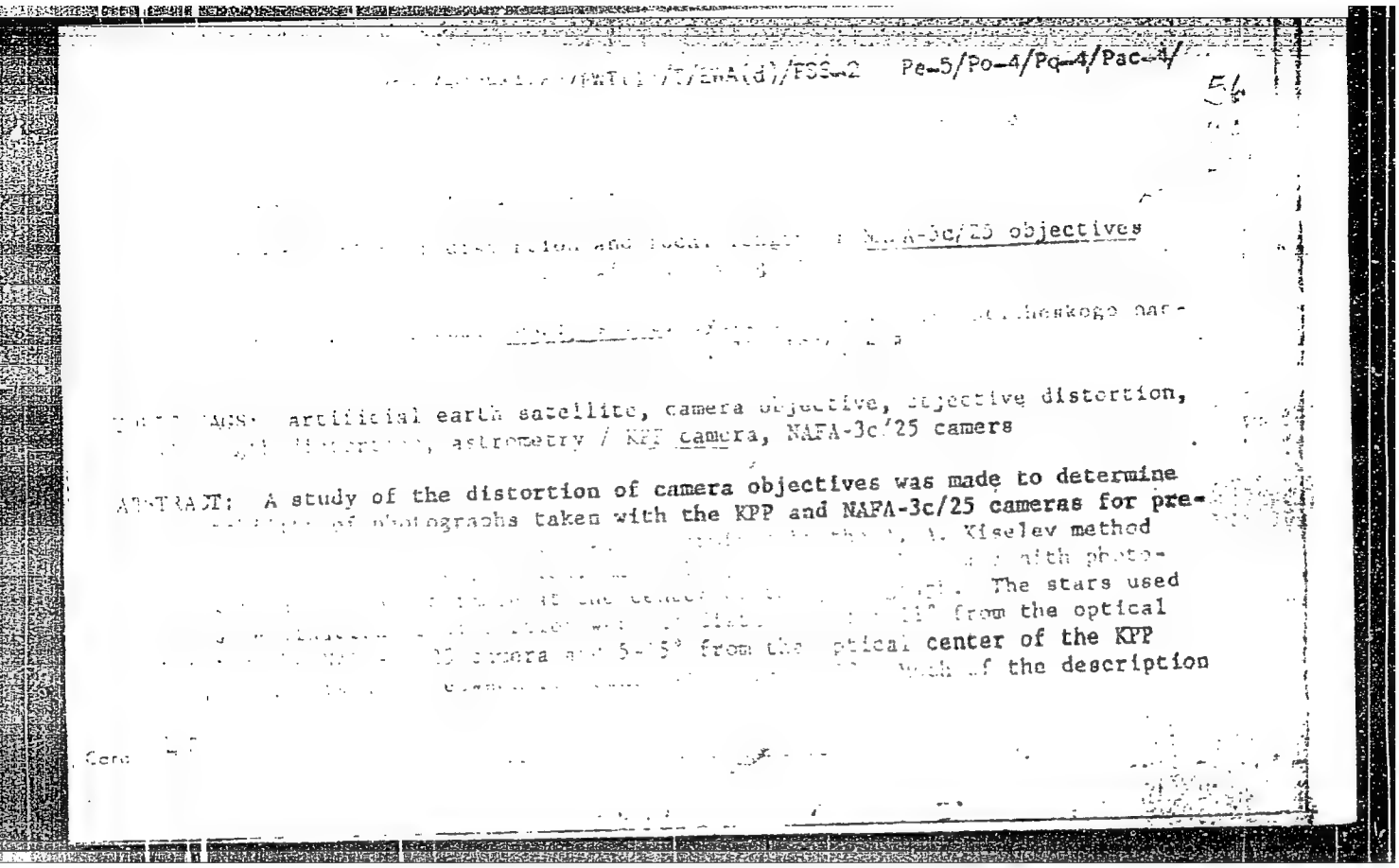
(EYEGLASSES)
(MYOPIA in inf. & child)
(STUDENTS)

KOVAL'KOVA, Z.P., kand.med.nauk; SYCHEV, A.A., kand.med.nauk; GORYUNOVA, A.A., assistent

Dynamics of the physical development of school children in Kharkov for 20 years. Gig. i san. 26 no.10:31-34 O '61. (MIRA 15:5)

1. Iz kafedry gigiyeny detey i podrostkov Khar'kovskogo meditsinskogo instituta.

(KHARKOV--CHILDREN--GROWTH)



/PMTL/T/ZhA(d)/PS3-2 Pe-5/Po-4/Pq-4/Pac-4/

54

...A-3c/25 objectives

...Shenkoge nar-

...: artificial earth satellite, camera objective, objective distortion, ..., astrometry / KPP camera, NAFA-3c/25 camera

ABSTRACT: A study of the distortion of camera objectives was made to determine ... of photographs taken with the KPP and NAFA-3c/25 cameras for pre- ... V. Kiselev method ... with photo- ... The stars used ... from the optical ... 25 camera and 5-15° from the optical center of the KPP ... with of the description

Card

L 26644-65
ACCESSION NR: AT5002814

[illegible] the method of analyzing the data presumes that the reader has a knowledge of [illegible] Difficulties are in- [illegible] possible to obtain a [illegible] center, but this can- [illegible] to be measured [illegible] at the margin of the [illegible] data are given on ob- [illegible] efficient on distance of the object from the center of the photograph. Information is also presented [illegible] dependence of the distortion coefficient on azimuth for the two cameras. An important discovery was that the distortion is asymmetrical relative to the optical center. Focal length was determined from a zenith photograph of stars with a good point image; star pairs were selected so that the straight line pas- [illegible] through the center of the photograph. Orig. art. has:

[illegible] (Leningrad state university)

SYCHEV, A.D., kand.tekhn.nauk

Changes in readings of instruments (manometers) caused by vibrations. Rasch.na prochn. no.4:375-394 '59. (MIRA 13:4)

(Manometer--Vibration)

SYCHEV, A.D., kand. tekhn. nauk

Investigation of vibrations of elements of instruments (manometers) taking into consideration natural vibrations. Izv. vys. ucheb. zav.; mashinostr. no.2:79-90 '63. (MIRA 16:8)

1. Zaochnyy mashinostroitel'nyy institut.

MANUKOVSKIY, N.F.; POLONETSKIY, S.D.; OREKHOV, N.I.; SYCHEV, A.F.; BOLDYREV, M.D.; SEMENOV, V.M., nauchnyy red.; KRYUCHKOV, V.L., red.; CHIRKOV, A.Ya., red.; PERSON, M.N., tekhn. red.

[Over-all mechanization of corn growing and harvesting]Kompleksnaia mekhanizatsiia vozdelyvaniia i uborki kukuruzy. Moskva, Proftekhizdat, 1962. 118 p. (MIRA 16:2)
(Corn (Maize)) (Farm mechanization)

ABDURAKHMANOV, T.R.; SYCHEV, A.G.; TSYBANOVA, V.A.

Electrocardiographic study of the effect of tinctures of certain plants of the genus Lagochilus. Med. zhur. Uzb. no.12:78 D '61. (MIRA 15:2)

1. Iz kafedry farmakologii (zav. - prof. I.E.Akopov) Kubanskogo meditsinskogo instituta.
(LAGOCHILUS) (ELECTROCARDIOGRAPHY)

KOLTUN, Sergey Ivanovich; BORINSKIY, Mikhail L'vovich; SYCHEV, A.M., inzh., retsenzent; KOVALENKO, A.V., inzh., red.; DUGINA, N.A., tekhn.red.

[Effecting savings of die steel] Ekonomiia shtampovoi stali. Pod red. A.V.Kovalenko. Moskva, Mashgiz, 1961. 43 p. (MIRA 15:5)

(Dies (Metalworking)) (Tool steel)

ZLATKIN, Moisey Grigor'yevich; DOROKHOV, Nikolay Nikolayevich; LEBEDEV, Nikolay Ivanovich; MAKAROV, Nikolay Yevgen'yevich; NEYSHTAT, Zyama Fal'kovich; SYCHEV, Arkadiy Mikhaylovich; SKLYUYEV, P.V., kand. tekhn. nauk, retsenzent; TASHCHEV, A.K., kand. tekhn. nauk, retsenzent; TRUBIN, V.N., kand. tekhn. nauk, retsenzent; VSHIVKOV, P.P., inzh., retsenzent; KON'KOV, A.S., inzh., retsenzent; LEBEDEV, N.S., inzh., retsenzent; POTEKUSHIN, N.V., inzh., retsenzent; TYAGUNOV, V.A., doktor tekhn. nauk, red.; SOKOLOV, K.N., kand. tekhn. nauk, red.; SKORNYAKOV, V.B., red.; YAROSHENKO, Yu.G., red.; ZAKHAROV, B.P., inzh., red.; AMIROV, I.M., inzh., red.; MYSHKOVSKIY, V.A., inzh., red.; SHELEKHOV, V.A., inzh., red.; BOGOMOLOV, O.P., inzh., red.; KATS, I.S., inzh., red.; LEVANOV, A.N., inzh., red.; DUGINA, N.A., tekhn. red.

[Handbook on forging practices] Spravochnik rabochego kuznechno-shtampovochnogo proizvodstva. By M.G.Zlatkin i dr. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 776 p. (MIRA 14:9)

(Forging—Handbooks, manuals, etc.)

Sychev, A.P.

137-58-5-9315

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 75 (USSR)

AUTHOR: Sychev, A. P.

TITLE: Some Problems of Reduction Electrosmelting of Lead (Nekotoryye voprosy svintsovoy vosstanovitel'noy elektroplavki)

PERIODICAL: Sb. tr. Vses. n.-i. in-ta tsvetn. met., 1956, Nr 1, pp 38-47

ABSTRACT: Large-scale experiments on electrosmelting of Pb-sinters were carried out in an experimental single-phase furnace with an area of 1.2 m^2 and a transformer capable of supplying potentials in steps of 76-64 v and 57 v. The experiments were conducted at an electrode potential of 57 v. The following conditions of electrosmelting were found to be optimal with regard to the extraction of Pb as a raw metal: S content in the sinter 3-3.5%; coke consumption, 6-7% relative to the sinter; depth of hearth 600-700 mm; energy consumption per 1 ton of sinter 600-700 kwh; output of the furnace 5-6 t/m^3. The direct extraction of Pb as a raw metal amounted to an average of 88.6% when smelting standard Pb sinter. 40% of the Cu passes into Pb, while 50% of it enters the matte. The greater portion of Zn passes into

Card 1/2

137-58-5-9315

Some Problems of Reduction Electrosmelting of Lead

slag, while 30-35% of it undergoes sublimation. The effect of S and of the reductant on the production indices of the process was investigated; experiments were conducted on the electrosmelting of flux-free Pb-sinter containing approximately 50% Pb and 15% Zn.

N. P.

1. Electric furnaces--Operation 2. Lead--Production 3. Lead ores--Processing
4. Slags--Properties

Card 2/2

137-58-4-6816

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4. p 72 (USSR)

AUTHORS: Sychev, A.P., Nikiforov, B.K.

TITLE: Experience in the Treatment of Copper Dross in an Electric Furnace (Opyt pererabotki mednykh shlikerov v elektropechi)

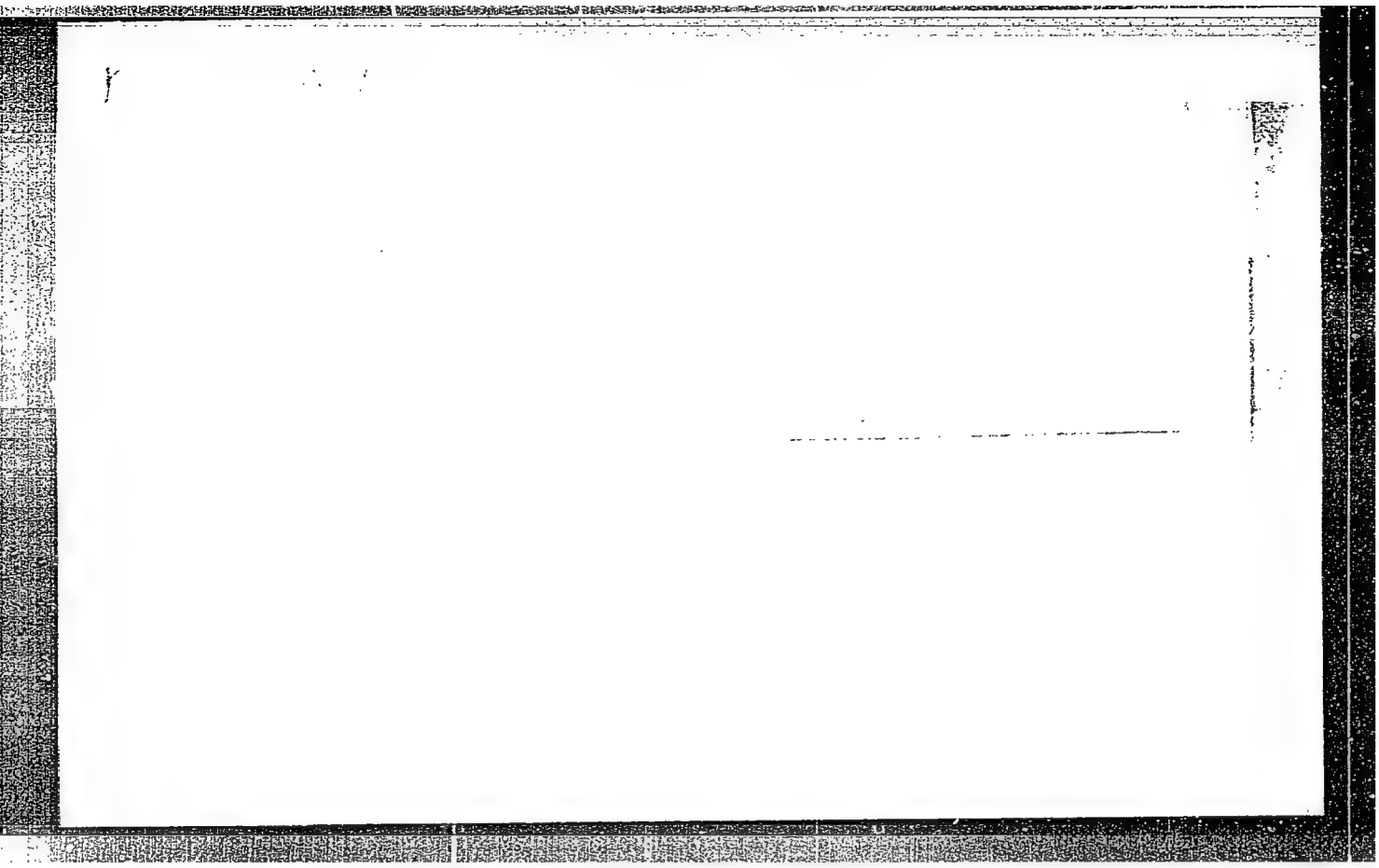
PERIODICAL: Sb. tr. Vses. n.-i. in-ta tsvetn. met., 1956, Nr 1, pp 69-78

ABSTRACT: Electric smelting of Cu drosses yields commercial matte, low-copper crude Pb, and speiss in which there is a concentration of As. Furnace treatment of drosses is at low electrode voltages. The best results are obtained with a charge consisting of 20% Pb concentrate, 30% pyrite cinders, and 6% coke breeze. The Pb yield in the crude metal was 81%, the Cu in the matte came to 81%, the Pb in the speiss 14%, the Cu in the crude Pb 2%, and the As in the speiss 27%.

G.S.

1. Metallurgy--USSR 2. Copper waste--Control systems

Card 1/1



APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001654220011-9"

Sychev, A.P.

137-1958-2-2628

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 60 (USSR)

AUTHORS: Sychev, A.P., Manchenko, L.V.

TITLE: Electrosmelting a Lead Sinter (Elektroplavka svintsovogo aglomerata)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 14, pp 18-23

ABSTRACT: Worked out and tested on a quasi-industrial scale was a method of reducing a Pb sinter by electrosmelting. The tests were conducted with a 3-phase 2400-kva electric furnace. The rated current from the 2 transformers was 20,800 amp. The furnace, rectangular in shape, had a hearth-bottom area of 19.6 m^2 (7x2.8). In the electrosmelting of lead it was found necessary to use lower voltage levels at the electrodes than are used in electric furnaces in which Cu and Ni are smelted. It was possible to smelt a fluxed sinter with an $\sim$50 percent Pb content and $\sim$12 percent Zn content, based on concentrates of the Leninogorsk lead works. The S content of the sinter should be higher than when the smelting is done in a shaft furnace (3-4 percent as opposed to 1.5-2 percent). Optimum smelting conditions were: coke-fines consumption 6-7 percent; S content of sinter

Card 1/2

Electrosmelting a Lead Sinter

3-4 percent; temperature of the process ~ 1200°. The effective depth of the bath was 1000-1200 mm. Electric power consumption was 600-650 kw-hr per ton of sinter. 992.15 tons of sinter were smelted. The average daily amount smelted for the 19 days during which the furnace was in operation was 52.2 tons, or 3.26 tons per square meter. The largest amount smelted was 67.0 t/day. The total quantity of dust was 86.822 tons, or 8.81 percent. The passing of Cu into the crude Pb (23.27 percent) and into the slag (15.8 percent) was attributed to the insufficient S content of the sinter (2 percent instead of 3-4 percent). The passing of Cu into the matte was found to be 38.65 percent. 84.25 percent of the Pb passed directly into the crude metal. 1.42 percent of the Pb had passed into the slag. The Zn became concentrated in the slags and dusts. The Zn content in the slag was 41.98 percent, in the matte 5.27 percent, in the skimmings 2.09 percent, in the dust 51.26 percent.

G.S.

1. Lead--Smelting--Processes

Card 2/2

SYCHEV, A. P.

SOV/136-58-9-16/21

AUTHOR: Ya. Sh.

TITLE: Conference on New Methods of Making Lead (Soveshchaniye po novym metodam polucheniya svintsa)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 9, pp 72 - 75 (USSR)

ABSTRACT: A conference on new methods of lead production from concentrates was held at the Gintsvetmet on June 22-25, 1958. Since the last meeting in 1953, over 20 flowsheets and variants have been tested by various works and organisations and the purpose of the present meeting was to evaluate this work. Pre-prints of the following reports had been circulated: "On Electric Smelting of Lead Raw Materials" by A.P. Sychev, V.A. Mikheyev, D.A. Sushchinskiy of VNIItsvetmet, A.V. Yukov of Kavkazgiprotsvetmet; "On Precipitation and Reaction Smelting of Lead Concentrates" by V.P. Lidov, L.A. Blinova, M.P. Smirnov, L.N. Kudryashova of Gintsvetmet, I.R.Polyvyanyy et al. of the Institut metallurgii i obogashcheniya AN KazSSR (Institute of Metallurgy and Beneficiation of the Ac.Sc. KazSSR); "On Hydrometallurgical Treatment" by A.N. Vol'skiy, R.A. Aracheva, A.M. Yegorov, P.S.Titov, F.M. Loskutov and V.S. Lovchikov of Mintsvetmetzoloto and A.V. Pomosov, A.I. Levin et al. of the Ural'skiy

Card 1/5

politekhnicheskiy institut (Urals Polytechnic Institute); on the "Electrolytic Production of Lead by Electrolytes of Fused Salts" by I.G. Gul'din, A.V. Bushinskaya, V.P. Barinova and V.K. Ruppul' of Gintsvetmet and Yu.K. Delimarskiy, I.D. Panchenko, Ye.B. Gitman and A.A.Kolotiy of IONKh Ac.Sc. Ukrainian SSR. The conference was opened by D.M. Yukhtanov, deputy director of Gintsvetmet, who discussed recent progress and noted that predictions that the lead industry would develop in the direction of the hydrometallurgical treatment of flotation concentrates had not been fulfilled; he said that the most hightly developed of the new methods were electric smelting and electrolytis of fused material and that pyrometallurgy would retain its importance for a long time. In the discussion that followed, D.M. Chizhikov, corresponding member of the Ac.Sc. USSR, systematized and reviewed all known processes. P.A. Pozdnikov and A.A. Vlasova of UFAN described methods of treatment developed there; the high effectiveness of which was doubted by V.A.Karchevskiy of Giprotsvetmet and S.I. Sobol' of Gintsvetmet.

Card2/5

Conference on New Methods of Making Lead SOV/136-58-9-16/21

A.M. Zykov of the Leningrad Polytechnic Institute criticised the reports presented as being insufficiently analytical. G.P. Vyatlev of the Ukrtsink Works recommended the adoption of electric instead of shaft smelting of secondary lead materials at the works. A.N. Vol'skiy, Corresponding Member of the Ac.Sc. of the Mintsvetmetzoloto described work he had directed there on sulphide oxidation and recommended more attention to safety aspects. V.F. Fedorov of the GNTK USSR drew attention to the comparative lack of work in the Soviet lead industry on new methods, but opposed the proposal by Gintsvetmet to build a new, large electric furnace at the Leninogorsk Works. P.I. Kravchenko of the Elektrotsink Works deplored the incompleteness of all the work reported at the conference. A.M. Lomov of Kavkazgiprotsvetmet considered the adoption of electric smelting of lead concentrates and I.D. Panchenko of IONKh of the Ac.Sc. Ukrainian SSR with electrolysis of fused salts. F.M. Loskutov, Professor, Doctor of Technical Sciences of Mintsvetmetzoloto reminded the conference that electric smelting is not applicable to all materials and disagreed with Kostin's suggestion that all Soviet works should be converted to

Card3/5

this practice; he also spoke against alkali treatment of lead-containing materials - a view opposed by G.G. Zapevalov of the Irkutskiy gorno-metallurgicheskiy institut (Irkutsk Mining-metallurgical Institute) who also stressed the need for economic evaluation. M.A.Chernyak of Giprotsvetmet doubted whether electric smelting could revolutionise the lead industry and urged more research on the alkali process and sintering. I.V. Paramonov of the Gosplan of the KazSSR criticised the research work reported but D.N. Klushin of Gintsvetmet said that this work had gone a long way to realise the aims set out at the previous conference though much effort had been wasted. Many speakers deplored the lack of central direction of research work. After putting on record their views on the proposed methods, the conference decided that effort should be concentrated on the study and development of
a) electric smelting of primary lead raw materials without added fluxes and electric smelting of secondary materials;
b) electrolysis of lead concentrates in fused electrolytes (for the rich materials of the "Elektrotsink" and Sikhali Works); c) electrolytic refining of lead in aqueous

Conference on New Methods of Making Lead SOV/136-58-9-16/21

solutions and ancillary operations (at the Chimkent Works); methods of regenerating alkali and soda; hydrometallurgical and combined schemes for treating the middlings from the concentration of polymetallic ores. The conference recommended that work on acid leaching should cease and that research work should be co-ordinated. About 100 representatives attended the conference.

Card 5/5 1. Lead--Production 2. Lead ores--Processing 3. Industrial equipment

SOV/136-58-12-7/22

AUTHORS: Sychev, A.P. and Platonov, G.F.

TITLE: Special Features of Lead Smelting in Electric Furnaces (Osobennosti vyplavki svintsa v elektropechakh)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 12, pp 28 - 30 (USSR)

ABSTRACT: Investigations and the tests on the 2400 kVA electric furnace at the Leninogorskiy svintsovyy zavod (Leninogorsk Lead Works) have confirmed the known advantages (Ref 1) of electric-furnace lead smelting; with power at 10 kopyek/kWh this method is also considerably better economically than shaft smelting. To supply information useful in replacing shaft by electric smelting (designs for which are now being worked out for a lead works) the author discusses the peculiarites of electric smelting and deduces the requirements for its successful use with deep slag layers. Slag (25-35% SiO_2, 8-20% CaO, 25-35% FeO, 8-15% ZnO, 5-8% Al_2O_3) temperature on tapping should be 1 200 - 1 250 °C (1 000 - 1 100 at the walls, 1 300 - 1 350 °C near the electrodes); the lead matte bath should be 700-800 and 1 100 - 1 500 °C, at the bottom and the slag boundary, respectively, the slag should be covered with a layer of solid charge at less than 700-800 °C.

Card1/2

Special Features of Lead Smelting in Electric Furnaces

Thorough hermetisation of the electric furnace is important both from health and efficiency aspects. High-density chrome-magnesite brick can be used for lining with basic (up to 30-35% SiO_2) slags and semi-acid fireclay for more acid slags; firebrick roofs are always satisfactory. Melt depth should be 1 200 - 1 800 mm (of which 1 000 - 1 500 mm is slag) and the surface should be covered with a 300 - 400 mm depth of solid charge. The rating of the furnace should be 80-120 kVA/m^2 and electrode loading should be 3-5 A/cm^2. The transformers should have enough range for the optimal voltage for slags of different conductivities to be obtained. There are 6 Soviet references.

LAKERNIK, M.M.; LIDOV, V.P.; ZDANOVICH, P.A.; SYCHEV, A.P.

Processing slags by the electrothermal method. Tsvet. met. 36 no.7:19-24 Jl '63. (MIRA 16:8)
(Nonferrous metals--Electrometallurgy) (Slag)

USSR/Chemistry, Colloid - Proteins Jul/Aug 52

"The Connection Between the Constitution of Organic Compounds and Their Coagulating Effect on Solutions of Egg Albumin," A. P. Sychev, S. S. Vasil'yev, Chair of Phys and Colloid Chem, Moscow Petroleum Inst imeni Acad I. M. Gubkin

"Kolloid Zhur" Vol XIV, No 4, pp 260-266

Detd the coagulating effect of monocarbinols, polyhydric alcs, phenols, aromatic alcs, alicyclic alcs, aliphatic ketones, alicyclic ketones, aldehydes (including formaldehyde) and aldehyde alcs on solns of dialyzed egg albumin. Found that addn of one

225T13

CH_2, CH_3, or CH group in any series increases the coagulating effect by a factor of 2-2.5; that the relative position of substituents in mono- and polyphenols influences the coagulating effect in a definite manner; etc. Believe that discovery of relationships of this type between the constitution of org compds and their effect on proteins will clarify problems connected with the biol action of org compds.

SYCHEV, A. P.

225T13

AUTHORS: Nikolayev, L. A., Sychev, A. P. SOV/156-58-1-22/46

TITLE: The Peculiarities of the Catalytic Effect of Complex Compounds (Osobennosti kataliticheskogo deystviya kompleksnykh soyedineniy)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 89 - 93 (USSR)

ABSTRACT: The natural complex compounds fulfill many catalytic functions important for the life of the cell. The authors succeeded in their laboratory in detecting a great number of complex compounds of copper, iron, cobalt, silver, and others which are active with respect to various redox processes. Above all the copper compounds with various amines turned out to be active. The authors succeeded in increasing the activity of copper in the cleavage reaction of hydrogen superoxide by a factor of 10^6 even by binding copper to ammonia. In the present report the results of the same reaction are given in the presence of complex compounds of copper with pyridine, ethanol amines, propanol amine, methylamine, and propylene-diamine. These complexes have a different activity, therefore its investigation permits to explain the causes of the activation during the

Card 1/3

complex formation. The authors had to explain whether a high activity is connected with a low activation energy, and to what an extent this applies in the case of true ferments or if the complex formation influences the pre-exponential multiplier in the case of an equalization of the velocity. The working method is described. Copper acetate or -sulfate was mixed with a corresponding amine. The activation energy was measured in an ultra-thermostat. On the strength of the obtained results (Tables 1,2, Figs 1,2) the authors drew the following conclusions: 1) The activation energy of the decomposition of hydrogen superoxide which is catalyzed by the complex compounds of copper is practically independent of the chemical nature of the addendum (amine) and approaches the activation energy of the thermal dissociation of the peroxide. 2) The authors present considerations favoring an assumption that highly unstable intermediate products play a decisive rôle in the catalysis caused by these complexes. There are 2 figures, 2 tables, and 7 references, 5 of which are Soviet.

The Peculiarities of the Catalytic Effect of Complex Compounds SOV/156-58-1-22/46

ASSOCIATION: Kafedra khimii Moskovskogo instituta inzhenerov transporta im. I.V. Stalina (Chair of Chemistry of the Moscow Institute of RR Engineers imeni I.V. Stalin)

SUBMITTED: October 5, 1957

Card 3/3

SYCHEV, Aleksey Petrovich, kand. khim. nauk; NEKHLYUDOVA, A.S., red. izd-va; NAZAROVA, A.S., tekhn. red.

[Water and solutions] Voda i rastvory. Moskva, Izd-vo "Znanie," 1961. 36 p. (Narodnyi universitet kul'tury. Estestvennonauchnyi fakul'tet, no.6) (MIRA 14:9)
(Water) (Solution (Chemistry))

TKACHENKO, R.F., master po remontu PMS-36 (stantsiya Bredy, Yuzhno-Ural'skoy dorogi).; KHOROSHEV, V.A., starshiy mekhanik puteukladchika PMS-26 (stantsiya Tuapse, Severo-Kavkazskoy dorogi).; VISICH, A.D., master po ekspluatatsii mashin (raz"yezd Kutan, Severo-Kavkazskoy dorogi).; NECHAYEV, B.N., master po ekspluatatsii mashin (stantsiya Karaul-Kuyu, Ashkhabadskoy dorogi).; SYCHEV, A.P., mekhanik puteukladochnogo krana (stantsiya Dzegam, Azerbaydzhanskoy dorogi).; SEREBROV, Yu.T., mekhanik putekladochnogo krana (stantsiya Dzegam, Azerbaydzhanskoy dorogi).; SHMELEV, V.V.; master po remontu (stantsiya Girey, Severo-Kavkazskoy dorogi).; MIRONENKO, V.I., mekhanik-puteukladchik (stantsiya Girey, Severo-Kavkazskoy dorogi).

According to the operators of railroad machinery, the equipment could be utilized in a better way. Put' i put.khoz.5 no.2:30-33 F '61. (MIRA 14:3)

(Railroads--Equipment and supplies)

SHISHOV, Ye.L., kand.tekhn.nauk; SYCHEV, A.S., inzh.; KILIMOV, S.L., inzh.; SHPARBER, P.A., inzh.

"Handbook on special methods of shaft sinking." Reviewed by E.L. Shishov and others. Shakht. stroi. 6 no.5:32-3 of cover M- '62 (MIRA 15:7)

(Shaft sinking)

TYURIN, K.M., inzh.; SYCHEV, A.S., inzh.; PRAGER, V.A., inzh.; BABADZHAN, D.M., inzh.

Investigation and development of a lining for a shaft sunk under particularly difficult hydrogeological conditions. Trudy VNIIOMSHSa no.15:94-114 '64.

(MIRA 18:2)